



**1.1.1: The Institutional ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment**

## INDEX

S. No	Description	Pg. No.
1	Institute Academic Committee Minutes	1-7
2	Department Academic Committee Minutes	8-17
3	University Academic Calendar (JNTUH)	18-27
4	Institute Academic Calendar	28-34
5	Department Academic Calendar	35-37
6	Continuous Internal Evaluation	38-113
7	Department wise work load	114-121
8	Department wise time tables	122-151
9	Sample course file	152-349
10	MID Examination Circulars and time tables	350-387
11	Semester Examination Time tables	388-402
12	External Project schedule	403-410
13	Sample CO-PO Attainment	411-422



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Date: 28.05.2022

## CIRCULAR

This is to inform that the below mentioned staff members are appointed as Institutional Academic Committee members for the Academic year 2022-2023 to discuss Institutional academic matters.

S NO	NAME OF THE FACULTY	DESIGNATION	SIGNATURE
1	Dr.K. BALAJI ,PRINCIPAL,AIPS	CHAIRPERSON	
2	Dr.Y JAYA PRADHA,DIRECTOR-H.R	MEMBERR	
3	Dr.NIHAR RANJAN DAS,VICE PRINCIPAL,AIPS IQAC COORDINATOR	MEMBER	
4	Dr.M.RAMAKRISHNA PROFESSOR AND HEAD. DEPARTMENT OF PHARMACY	MEMBER	
5	Dr.B.MANJULA ASSOCIATE PROFESSOR AND HEAD. DEPARTMENT OF PHARM D	MEMBER	
6	Dr.G.SAI KIRAN PROFESSOR	MEMBER	
7	Dr.VISHNU SRAVAN BOLLU,PROFESSOR	MEMBER	
8	M.RAJASHEKAR,PHYSICAL DIRECTOR	MEMBER	
9	S.SRIDEVI,LIBRARIAN	MEMBER	



Copy to:

1.ALL HODs

2.IQAC Coordinator

PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M).  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## INSTITUTIONAL ACADEMIC PLANNING & ADVISORY COMMITTEE

Institutional Academic Planning & Advisory Committee Members For the Academic Year 2022- 2023

S NO	NAME OF THE FACULTY	DESIGNATION
1	Dr.K. BALAJI ,PRINCIPAL,AIPS	CHAIRPERSON
2	Dr.Y JAYA PRADHA,DIRECTOR-H.R	MEMBERR
3	Dr.NIHAR RANJAN DAS,VICE PRINCIPAL,AIPS IQAC COORDINATOR	MEMBER
4	Dr.M.RAMAKRISHNA PROFESSOR AND HEAD. DEPARTMENT OF PHARMACY	MEMBER
5	Dr.B.MANJULA ASSOCIATE PROFESSOR AND HEAD. DEPARTMENT OF PHARM D	MEMBER
6	Dr.G.SAI KIRAN PROFESSOR	MEMBER
7	Dr.VISHNU SRAVAN BOLLU,PROFESSOR	MEMBER
8	M.RAJASHEKAR,PHYSICAL DIRECTOR	MEMBER
9	S.SRIDEVI,LIBRARIAN	MEMBER

Functions of the Academic Committee:

1. The academic committee is responsible for imbibing the best practices to provide an improved academic system for the present and future students.
2. The committee is also accountable for practices, such as conducting academic award functions to honor students for academic excellence.
3. Propose the academic requirements (Theory, Laboratory and Examination related) of each Department.
4. Scheduling of various academic activities.
5. Review of the academic activities.
- 6.Perform such other functions as may be assigned by the governing body



*Committed to Excellence in Technical Education*

*[Signature]*  
R. P. ...  
Gunthapally (V), Abdullapurmet (M),  
PHARMACEUTICAL SCIENCES  
AVANTHI INSTITUTE OF  
PRINCIPAL



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



AIPS/AC/2022-2023/01

Date: 30.05.2022

## CIRCULAR

This is to inform all the staff members that Institutional Academic Committee will be meeting on 01.06.2022 at 10.00 AM in the Principal's chamber to discuss the following agenda. All members are requested to attend the meeting without fail.

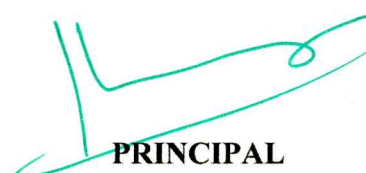
### Agenda:

1. Preparation of institute academic calendar of 2022-23
2. Value added courses
3. Hospital training sessions and visits
4. Pharmacological and Analytical Project works
5. Research works and collabroration
6. Workshops/FDPs
7. Industrial visits
8. Training and Placements
9. Sports/NSS activities
10. Any other issues

Copy to:

1. All HODS
2. IQAC coordinator
3. All the Committee Members



  
PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M).  
R.R. Dist. Telangana.

---

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## MINUTES OF THE INSTITUTIONAL ACADEMIC PLANNING & ADVISORY COMMITTEE

The Institutional Academic Committee meeting was held on 26-08-2022 at 10AM in Principal's chamber. The principal welcomed the staff and briefed on the above objective of the Institutional Academic Committee meeting. The principal started the deliberations by discussing the Academic issues and emphasized the need to concentrate on new University regulations.

### Agenda Item 1:

Preparation of Institute academic calendar of 2022-23.

#### Resolution:

- Dr. Nihar Ranjan Das IQAC Coordinator, prepared the college Academic Calendar based on the Academic Calendar issues by the University and is handed over to the Head of the Department of Pharmacy.
- Department wise Academic Calendar was prepared by the Head of the Department basing on the Calendar issued by the Coordinator and was sent to the IQAC coordinator for his approval.
- Timetables were prepared and workloads were allotted to the faculty based

Academic

Calendar of the institute as per the curriculum of the current semester.

### Agenda Item 2

Value added Courses

#### Resolution:

Dr. G. Sai Kiran, Professor, The member of the committee have been proposed that value added courses should be included in each department though it's not included in the curriculum as it finds important for the development and employability of the students.

### Agenda Item 3:

Hospital training sessions and visits:

#### Resolution:

The members suggested that every student should complete atleast one internship per year.

*Committed to Excellence in Technical Education*

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Agenda Item 4:

Pharmacological and Analytical Project works

### Resolution:

The members of the committee assigned the faculty to guide the students in project

## Agenda Item 5:

Research Works

### Resolutions

- Dr. Y. Jayapradha, advised the faculty members to Publish at least one research paper per semester in High Indexed Journal. The entire remaining faculty were suggested to publish one paper in Scopus journal.
- Dr. B. Manjula advised all the faculty members to attend the FDP every year.
- Dr. Vishnu sravan bolu, advised all the faculty members to undergo Internship Academic Interaction programmes.

## Agenda Item 6:

Training and placements

### Resolution:

- The Principal, AIPS staff members discussed and took a resolution and informed and the faculty members to implement the following from the academic year.
- Students who cleared all the subjects and secured CGPA above 7 should enroll for GPAT Programme.
- Students who cleared all the subjects and obtained CGPA between 6-7 should enroll for PGECET Programme.
- All the remaining students should attend CRT classes conducted by the college.
- Dr. M. Rama Krishna, informed the faculty members to organize various activities in the form of Competitions, Guest lectures, Career guidance, Entrepreneurship programmes etc for the students to improve their knowledge, skills and keep them abreast with the changing demands of the industries.

## Agenda Item 7:

Workshops/FDPS

**Resolution:** Dr. Y. Jayapradha, suggested the faculty to attend the FDP every year.



*Committed to Excellence in Technical Education*

**PRINCIPAL**  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



- She suggested the importance of providing training programmes to non-teaching staff in Ms Office, Ms Word and Excel which are very useful in drafting and for preparing documents.
- She also advised the English faculty to train the junior faculty and nonteaching staff to compose emails, notices, official letters, circulars which are necessary for the needs of their job and also for the professional development of the institution

## Agenda Item 8:

Industrial Visits

### Resolution:

- Dr. K. Balaji, proposed an idea of organizing regular industrial visits for the students in reputed industries like Pfizer, Aurabindo
- To acquire knowledge on the working of men and machinery in different pharmacy

Industries

- Dr. Nihar Ranjan Das suggested for arranging at least two guest lecturers to students in a semester.

## Agenda Item 9:

Sports/NSS Activities

### Resolution:

- M. Rajashekar proposed organizing Sports activities for the students and encourages the students to participate in competitions at the university, state or national level Tournaments
- He also informed the faculty members to conduct various technical events and NSS activities like Blood donation camps, Plantation drive, Swachh Bharat Campaign, Health check-up programs etc.

## Agenda Item 10

Any other Issues Resolution:

### Resolution

- Dr. Nihar Ranjan Das, the IQAC coordinator instructed all the staff members to maintain updated stock registers, Maintenance registers, Complaint registers etc of all the laboratories duly verified by the committee.
- It was also resolved after the discussion and should follow IQAC Audit Action Taken Report.

*Committed to Excellence in Technical Education*



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist., Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



S.no	Name of the faculty	Designation	Signature
1	Dr. K. BALAJI ,PRINCIPAL,AIPS	CHAIR PERSON	
2	Dr.Y.JAYAPRADA,DIRECTOR- H.R	MEMBERR	
3	Dr.NIHAR RANJAN DAS,VICE PRINCIPAL,AIPS IQAC COORDINATOR	MEMBER	
4	Dr. M. RAMAKRISHNA PROFESSOR AND HEAD. DEPARTMENT OF PHARMACY	MEMBER	
5	Dr. B. MANJULA ASSOCIATE PROFESSOR AND HEAD. DEPARTMENT OF PHARM D	MEMBER	
6	Dr.G.SAI KIRAN PROFESSOR	MEMBER	
7	Dr.VISHNU SRAVAN BOLLU,PROFESSOR	MEMBER	
8	M.RAJASHEKAR,PHYSICAL DIRECTOR	MEMBER	
9	S.SRIDEVI,LIBRARIAN	MEMBER	



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Date: 15.10.2022

## DEPARTMENT OF PHARMACY

### CIRCULAR

This is to inform that the Department Academic Committee (DAC) will be held on 18.10.2022

10:30AM at Principal Sir's chamber

#### Agenda:

1. Preparation of Department progress for the academic year 2022-23
2. Value added courses related to medical coding, Clinical SAS
3. Certificate courses/ Internship programs on Instrumentation handling
4. Project works on Pharmacological activities and Analytical designs
5. Research works on Plant extracts and their Pharmacological action
6. Training and Placements with respect to Multinational Pharmaceutical Industry needs
7. Industrial visits to formulation Pharmaceutical Industries
8. Extracurricular/ Co-curricular activities
9. Sports/NSS activities
10. Any other issues



Copy to:

1. All HODS
2. IQAC coordinator
3. All the Committee Members

PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## MINUTES OF THE INSTITUTIONAL ACADEMIC PLANNING & ADVISORY COMMITTEE

The Institutional Academic Committee meeting was held on 18.10.2022 at 10AM in Principal's chamber. The principal welcomed the staff and briefed on the above objective of the institutional Academic Committee meeting. The principal started the deliberations by discussing the Academic Issues and emphasized the need to concentrate on new University regulations.

### Agenda Item 1:

Preparation of Department progress for the academic year 2022-23

### Resolution:

Dr. M. Rama Krishna, HOD Pharmacy Analysed the results of B.Pharmacy 2021-2022 academic year and expressed satisfaction for getting more than 85% of pass percentage Committee congratulated the faculty who met the target of 90% or more.

### Agenda Item 2:

Value added Courses related to medical coding, Clinical SAS

### Resolution:

The members of the committee have been proposed that value added courses related to medical coding, medical scribing and clinical SAS related to be included in each department though it's not included in the curriculum as it finds important for the development and employability of the B. Pharmacy

The members of the committee have been proposed that value added courses related to Quality Assurance and Quality control, Pharmaceutical technology and Pharmacological Assays should be included in each department though its not included in the curriculum as it finds important for the development and employability of the M.Pharmacy students.

### Agenda Item 3:

Certificate courses/Internship programs on Instrumentation handling

### Resolution:

- The members suggested that every B. Pharmacy students should complete certification courses/Internship courses related to latest instrumentation handling, thesis writing courses.



Committed to Excellence in Technical Education

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Agenda Item 4:

Project works on Pharmacological activities and Analytical designs

### Resolution:

- The members of the committee assigned the faculty to guide the B.Pharmacy students in project works related to plant extracts and pharmacological activities, pharmaceuticals related projects and analytical projects.
- The members of the committee assigned the faculty to guide the students to perform real time projects related to drug design and drug development

## Agenda Item 5:

Research works on Plant Extracts and their Pharmacological

action

### Resolution:

- Dr. K. Balaji, Principal advised the faculty members to publish atleast one research Paper per semester in High Indexed Journal. The entire remaining faculty were

Suggested

to publish one paper in Scopus journal.

- Dr. Vishnu Sravan Bollu, Professor advised all the faculty members to attend the FDP programs every year.

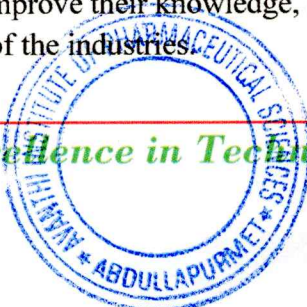
## Agenda Item 6:

Training and placements with respect to Multinational Pharmaceutical Industry needs

### Resolution:

- The Principal, AIPS staff members discussed and took a resolution and informed and the faculty members to implement the following from the academic year:
- Students who cleared all the subjects and secured CGPA above 7 should enroll for GPAT Programme Students who cleared all the subjects and obtained CGPA between 6-7 should
- All the remaining students should attend CRT classes conducted by the college.
- Dr. M. Rama Krishna, informed the faculty members to organize various activities in the form of Competitions, Guest lectures, Career guidance, Entrepreneurship programmes etc for the students to improve their knowledge, skills and keep them abreast with the changing demands of the industries

*Committed to Excellence in Technical Education*



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Agenda Item 7:

Industrial Visits to formulation Pharmaceutical Industries

### Resolution:

- Mr. A. Naga Srinivas proposed an idea of organizing regular industrial visits for the students in reputed multinational Pharmacy industries like Pfizer, Aurabindo, Dr. Reddys Laboratories, DIVIS Laboratories.
- To acquire knowledge on the working of men and machinery in different pharma industries.
- P. Lavanya suggested for arranging at least two guest lecturers to students in a Semester.

## Agenda Item 8:

Sports/NSS Activities

### Resolution:

- M. Rajashekar proposed organizing Sports activities for the students and encourages the students to participate in competitions at the university, state or national level tournaments.
- He also informed the faculty members to conduct various technical events and NSS He activities like Blood donation camps. Plantation drive, Swacch Bharat Campaign, Health check-up programs etc.,

## Agenda Item 9:


Any other Issues

### Resolution:

- The IQAC coordinator instructed all the staff members to maintain updated stock registers, Maintenance registers, Complaint registers etc of all the laboratories duly verified by the committee.
- It was also resolved after the discussion and should follow IQAC Audit Action Taken Report



*Committed to Excellence in Technical Education*

  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## List of DAC Members attended

s.no	Name of the faculty	Designation	Signature
1	Dr.K. BALAJI ,PRINCIPAL,AIPS	CHAIR PERSON	
2	Dr.Y JAYAPRADHA ,DIRECTOR-H.R	MEMBER	
3	Dr.NIHAR RANJAN DAS, VICE PRINCIPAL, AIPS IQAC COORDINATOR	MEMBER	
4	Dr.M.RAMAKRISHNA PROFESSOR AND HEAD. DEPARTMENT OF PHARMACY	MEMBER	
5	Dr.G.SAI KIRAN PROFESSOR	MEMBER	
6	Dr.VISHNU SRAVAN BOLLU, PROFESSOR	MEMBER	
7	P.LAVANYA, ASSOCIATE PROFESSOR	MEMBER	
8	M.RAJASHEKAR, PHYSICAL DIRECTOR	MEMBER	
9	S.SRIDEVI, LIBRARIAN	MEMBER	

HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACTICE

### CIRCULAR


Date: 27.06.2022

This is to inform that the Department Academic Committee (DAC) will be held on 01.07.2022 10:30AM at Principal Sir's chamber.

#### Agenda:

1. Preparation of department progress for the academic year 2022-23
2. Hospital training and Hospital visits
3. Clinical Project works
4. Community centers correlated training
5. Placement in Pharma - IT Sector Companies.
6. Value added courses
7. Research works
- 8 Sports/NSS activities
9. Any other issues



  
**PRINCIPAL**  
**PRINCIPAL**  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Copy to:

1. All HODS
2. IQAC coordinator
3. All the Committee Members

---

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## MINUTES OF THE INSTITUTIONAL ACADEMIC PLANNING & ADVISORY COMMITTEE

The Institutional Academic Committee meeting was held on 01.07.2022 at 10AM in Principal's chamber. The principal welcomed the staff and briefed on the above objective of the Institutional Academic Committee meeting. The principal started the deliberations by discussing the Academic issues and emphasized the need to concentrate on new University regulations.

### Agenda Item 1:

Preparation of Department progress for the academic year 2022-23

#### Resolution:

- Dr. B.Manjula, HOD Pharmacy Practice analysed the results of Pharm.D 2021-2022 academic year and expressed satisfaction for getting more than 85% of pass percentage. Committee congratulated the faculty who met the target of 90% or more.

### Agenda Item 2:

Hospital training and Hospital visits

#### Resolution:

- Dr. P. Swathi suggested faculty to train the students to participate in bed side learning.
- Dr.. V. Anudeep proposed an idea of organizing regular hospital visits for the students in reputed hospitals like Global hospital, Gandhi hospital

### Agenda Item 3:

Clinical Project works:

#### Resolution:

The members suggested that every student should complete atleast one clinical project which includes both cases and controls:

### Agenda Item 4

Community centers centers correlated training

#### Resolution:

The members of the committee assigned the Pharmacy practice faculty to The members of the committee assigned the Pharmacy practice faculty to guide the students to participate in community center correlated training such as B.P monitoring, Glucose monitoring

*Committed to Excellence in Technical Education*



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Agenda Item 5:

Placement in Pharma - IT Sector Companies:

### Resolution:

- The Principal, AIPS staff members discussed and took a resolution and informed the faculty members to implement the following from the academic year.
- Students should attend CRT classes conducted by the college.
- Dr. Md Abdul Azeem informed the faculty members to organize various activities in the form of Competitions, Guest lectures, Career guidance, Entrepreneurship programmes etc for the students to improve their knowledge, skills and keep them abreast with the changing demands of the industries.

## Agenda Item 6:

Value added courses

### Resolution:

The members of the committee have been proposed that value added courses related to clinical SAP, clinical research, Pharmacovigilance should be included in each department though its not included in the curriculum as it finds important for the development and employability of the students.

## Agenda Item 7:

works

### Resolution:

- Dr. B.Manjula advised the faculty members to publish atleast one research paper per semester in High Indexed Journal. The entire remaining faculty were suggested to publish one paper in Scopus journal

## Agenda Item 8:

Sports/NSS activities

### Resolution:

- M.Rajashekar proposed organizing Sports activities for the students and encourages the students to participate in competitions at the university, state or national level tournaments.

*Committed to Excellence in Technical Education*



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



- MD Abdul Azeem also informed the faculty members to conduct various technical events and NSS activities like Blood donation camps, Plantation drive, Swacch Bharat Campaign, Health check-up programs etc.

## Agenda Item 9:

Any other Issues

## Resolution:

- Dr. Nihar Ranjan Das The IQAC coordinator instructed all the staff members to maintain updated stock registers, Maintenance registers, and Complaint registers of all the laboratories duly verified by the committee.
- It was also resolved after the discussion and should follow IQAC Audit Action Taken Report



*Committed to Excellence in Technical Education*

*Principal*  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M), R.R. Dist., Hyderabad - 501 512.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## List Of DAC Members attended

S.no	Name of the faculty	Designation	Signature
1	Dr.K. BALAJI ,PRINCIPAL,AIPS	CHAIR PERSON	
2	Dr. Y.JAYAPRADHA,DIRECTOR-H.R	MEMBERR	
3	Dr.NIHAR RANJAN DAS,VICE PRINCIPAL,AIPS IQAC COORDINATOR	MEMBER	
4	Dr.B.MANJULA ASSOCIATE PROFESSOR AND HEAD. DEPARTMENT OF PHARM D	MEMBER	
5	Dr.MD.ABDUL AZEEM	MEMBER	
6	Dr. P. SWATHI ASSISTANT PROFESSOR	MEMBER	
7	Dr. V.ANUDEEP, ASSISTANT PROFESSOR	MEMBER	
8	M.RAJASHEKAR,PHYSICAL DIRECTOR	MEMBER	
9	S.SRIDEVI,LIBRARIAN	MEMBER	

HOD



**PRINCIPAL**  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**ACADEMIC CALENDAR 2022-23**

**PHARM. D (REGULAR) AND PHARM.D (PB) I YEAR**


**Pharm. D (Regular) and Pharm. D (PB) I Year**

S. No	Description	Duration	
		From	To
1	Commencement of classwork / Orientation programme	<b>28.11.2022</b>	
2	1 <sup>st</sup> Spell of Instructions	28.11.2022	25.02.2023 (13 Weeks)
3	Supplementary Examinations	27.02.2023	04.03.2023 (1 Week)
4	First Mid Term Examinations	06.03.2023	11.03.2023 (1 Week)
5	Submission of First Mid Term Exam Marks to the University on or before	17.03.2023	
6	2 <sup>nd</sup> Spell of Instructions (including Summer Vacation)	13.03.2023	17.06.2023 (14 Weeks)
7	Summer Vacation	15.05.2023	27.05.2023 (2 Weeks)
8	Second Mid Term Examinations	19.06.2023	24.06.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before	01.07.2023	
10	3 <sup>rd</sup> Spell of Instructions	26.06.2023	16.09.2023 (12 Weeks)
11	Third Mid Term Examinations	19.09.2023	25.09.2023 (1 Week)
12	Preparation Holidays and Practical Examinations	26.09.2023	09.10.2023 (2 Weeks)
13	Submission of Third Mid Term Exam Marks to the University on or before	03.10.2023	
14	End / Supplementary Examinations	10.10.2023	23.10.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 208

  
REGISTRAR



  
- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**ACADEMIC CALENDAR 2022-23**


**PHARM. D (REGULAR) AND PHARM.D (PB) II YEAR**

**Pharm. D (Regular) and Pharm. D (PB) II Year**

S. No	Description	Duration	
		From	To
1	Commencement of classwork		31.10.2022
2	1 <sup>st</sup> Spell of Instructions	31.10.2022	28.01.2023 (13 Weeks)
3	First Mid Term Examinations	30.01.2023	04.02.2023 (1 Week)
4	Submission of First Mid Term Exam Marks to the University on or before		10.02.2023
5	2 <sup>nd</sup> Spell of Instructions	06.02.2023	29.04.2023 (12 Weeks)
6	Supplementary Examinations	13.02.2023	20.02.2023 (1 Week)
7	Second Mid Term Examinations	01.05.2023	06.05.2023 (1 Week)
8	Submission of Second Mid Term Exam Marks to the University on or before		12.05.2023
9	3 <sup>rd</sup> Spell of Instructions (including Summer Vacation)	08.05.2023	12.08.2023 (14 Weeks)
10	Summer vacation	15.05.2023	27.05.2023 (2 Weeks)
11	Third Mid Term Examinations	14.08.2023	19.08.2023 (1 Week)
12	Preparation Holidays and Practical Examinations	21.08.2023	02.09.2023 (2 Weeks)
13	Submission of Third Mid Term Exam Marks to the University on or before		25.08.2023
14	End / Supplementary Examinations	04.09.2023	16.09.2023 (2 Weeks)

  
31/10/22  
REGISTRAR



  
- PRINCIPAL  
Avanathi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## ACADEMIC CALENDAR 2022-23

### Pharm. D (Regular) and Pharm. D (PB) III Year

#### Pharm. D (Regular) III Year

S. No	Description	Duration	
		From	To
1.	Commencement of classwork		05.09.2022
2.	1 <sup>st</sup> Spell of Instructions (including Dussehra Recess)	05.09.2022	03.12.2022 (13 Weeks)
3.	Dussehra Recess	03.10.2022	08.10.2022
4.	First Mid Term Examinations	05.12.2022	10.12.2022 (1 Week)
5.	2 <sup>nd</sup> Spell of Instructions	12.12.2022	04.03.2023 (12 Weeks)
6.	Submission of First Mid Term Exam Marks to the University on or before		17.12.2022
7.	Supplementary Examinations	19.12.2022	24.12.2022
8.	Second Mid Term Examinations	06.03.2023	11.03.2023 (1 Week)
9.	3 <sup>rd</sup> Spell of Instructions	13.03.2023	17.06.2023 (14 Weeks)
10.	Submission of Second Mid Term Exam Marks to the University on or before		18.03.2023
11.	Summer Vacation	15.05.2023	27.05.2023 (2 Weeks)
12.	Third Mid Term Examinations	19.06.2023	24.06.2023 (1 Week)
13.	Preparation Holidays and Practical Examinations	26.06.2023	08.07.2023 (2 Weeks)
14.	Submission of Third Mid Term Exam Marks to the University on or before		01.07.2023
15.	End / Supplementary Examinations	10.07.2023	22.07.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 204

#### Pharm.D (PB) III Year

S. No	Description	Duration	
		From	To
1.	Commencement of internship in general ward	05.09.2022	04.03.2023 (6 Months)
2.	Report submission of internship in general ward		06.03.2023
3.	Commencement of internship in Specialty ward - 1	07.03.2023	06.05.2023 (2 Months)
4.	Report submission of internship in Specialty ward - 1		08.05.2023
5.	Commencement of internship in Specialty ward - 2	09.05.2023	08.07.2023 (2 Months)
6.	Report submission of internship in Specialty ward - 2		10.07.2023
7.	Commencement of internship in Specialty ward - 3	11.07.2023	09.09.2023 (2 Months)
8.	Report submission of internship in Specialty ward - 3		11.09.2023
9.	Final viva of Internship		13.09.2023



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

*[Signature]*  
 2/9/22  
 REGISTRAR

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## REVISED ACADEMIC CALENDAR 2022-23

For All Constituent & Affiliated Colleges of JNTUHH

Pharm D. (Regular) IV, V & VI Year

### Pharm. D. (Regular) IV & V Years

S. No	Description	Duration	
		From	To
1.	Commencement of classwork		04.07.2022
2.	1 <sup>st</sup> Spell of Instructions	04.07.2022	24.09.2022 (12 Weeks)
3.	First Mid Term Examinations	26.09.2022	01.10.2022 (1 Week)
4.	Dussehra Recess	03.10.2022	08.10.2022 (1 Week)
5.	2 <sup>nd</sup> Spell of Instructions	10.10.2022	31.12.2022 (12 Weeks)
6.	Submission of First Mid Term Exam Marks to the University on or before		15.10.2022
7.	<b>Supplementary Examinations</b>	<b>19.12.2022</b>	<b>29.12.2022</b>
8.	Second Mid Term Examinations	02.01.2023	07.01.2023 (1 Week)
9.	3 <sup>rd</sup> Spell of Instructions	09.01.2023	01.04.2023 (12 Weeks)
10.	Submission of Second Mid Term Exam Marks to the University on or before		16.01.2023
11.	Third Mid Term Examinations	03.04.2023	08.04.2023 (1 Week)
12.	Preparation Holidays and Practical Examinations	10.04.2023	22.04.2023 (2 Weeks)
13.	Submission of Third Mid Term Exam Marks to the University on or before		22.04.2023
14.	End / Supplementary Examinations	24.04.2023	06.05.2023 (2 Weeks)
15.	Summer Holidays	08.05.2023	20.05.2023 (2 Weeks)

### Pharm. D (Regular) VI Year

S. No	Description	Duration	
		From	To
1	Commencement of internship in General ward	04.07.2022	03.01.2023 (6 Months)
2	Report submission of internship in General ward		04.01.2023
3	Commencement of internship in Specialty ward -1	05.01.2023	04.03.2023 (2 Months)
4	Report submission of internship in Specialty ward -1		06.03.2023
5	Commencement of internship in Specialty ward - 2	07.03.2023	06.05.2023 (2 Months)
6	Report submission of internship in Specialty ward - 2		08.05.2023
7	Commencement of internship in Specialty ward - 3	09.05.2023	08.07.2023 (2 Months)
8	Report submission of internship in Specialty ward - 3		10.07.2023
9	Final viva of internship		12.07.2023



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

**REGISTRAR**

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## ACADEMIC CALENDAR 2022-23

### M.Tech./ M.Pharm. I YEAR I & II SEMESTERS

#### I SEM

S. No	Description	Duration	
		From	To
1	Commencement of I Semester classwork		26.10.2022
2	1 <sup>st</sup> Spell of Instructions	26.10.2022	20.12.2022 (8 Weeks)
3	First Mid Term Examinations	21.12.2022	28.12.2022 (1 Week)
4	Submission of First Mid Term Exam Marks to the University on or before		04.01.2023
5	2 <sup>nd</sup> Spell of Instructions	29.12.2022	25.02.2023 (8 Weeks)
6	Second Mid Term Examinations	27.02.2023	04.03.2023 (1 Week)
7	Preparation Holidays and Practical Examinations	06.03.2023	11.03.2023 (1 Week)
8	Submission of Second Mid Term Exam Marks to the University on or before		11.03.2023
9	End Semester Examinations	13.03.2023	25.03.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 94

#### II SEM

S. No	Description	Duration	
		From	To
1	Commencement of II Semester classwork		27.03.2023
2	1 <sup>st</sup> Spell of Instructions (including Summer Vacation)	27.03.2023	03.06.2023 (10 Weeks)
3	<b>Summer Vacation</b>	15.05.2023	27.05.2023 (2 Weeks)
4	First Mid Term Examinations	05.06.2023	10.06.2023 (1 Week)
5	Submission of First Mid Term Exam Marks to the University on or before		17.06.2023
6	2 <sup>nd</sup> Spell of Instructions	12.06.2023	08.08.2023 (8 Weeks)
7	Second Mid Term Examinations	09.08.2023	16.08.2023 (1 Week)
8	Preparation Holidays and Practical Examinations	17.08.2023	23.08.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before		23.08.2023
10	End Semester Examinations	24.08.2023	06.09.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 91



*[Signature]*  
22/REGISTRAR

*[Signature]*  
- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**ACADEMIC CALENDAR 2022-23**

**M. Tech./ M. Pharm. II YEAR I & II SEMESTERS**

**I SEM**

S. No	Description	Duration	
		From	To
1	Commencement of I Semester classwork		21.10.2022
2	1 <sup>st</sup> Spell of Instructions	21.10.2022	15.12.2022 (8 Weeks)
3	Preparation of Project Work Proposals	21.10.2022	17.11.2022 (4 Weeks)
4	Project Work Review -I: (Project Submission & approval)	18.11.2022	24.11.2022 (1 Week)
5	Last date for submission of list of approved PRC-I students from the College to the University Examination branch.		26.11.2022
6	First Mid Term Examinations	16.12.2022	22.12.2022 (1 Week)
7	Submission of First Mid Term Exam Marks to the University on or before		30.12.2022
8	2 <sup>nd</sup> Spell of Instructions	23.12.2022	16.02.2023 (8 Weeks)
9	Second Mid Term Examinations	17.02.2023	23.02.2023 (1 Week)
10	Preparation Holidays and Practical Examinations	24.02.2023	02.03.2023 (1 Week)
11	Submission of Second Mid Term Exam Marks to the University on or before		01.03.2023
12	End Semester Examinations	03.03.2023	16.03.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 92

**II SEM**

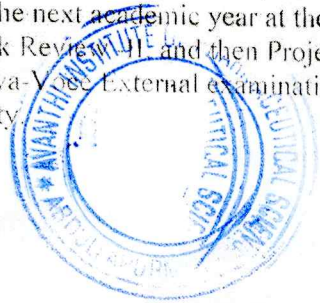
S. No	Description	Duration	
		From	To
1	Commencement of II Semester (Project Work Continuation) (25.11.2022 to 16.03.2023 – 16 weeks)		17.03.2023
2	Project Work Review -II (Phase-I)	17.03.2023	23.03.2023 (1 Week)
3	** Project Work Review -II (Phase-II)	11.04.2023	13.04.2023 (3 days)
4	Last date for submission of PRC-II marks		20.04.2023
5	Project Work Review -III (Phase-I) (24.03.2023 to 26.08.2023 – 22 Weeks)	28.08.2023	02.09.2023 (1 Week)
6	Last date for submission of Project Work Review-III (Phase-I) Marks		09.09.2023
7	* Date of eligibility of thesis submission		09.09.2023
8	Submission of Thesis and Project Viva –Voce Examination (PRC-III Phase-I)		---
9	** Project Work Review -III (Phase-II) (04.09.2023 to 02.12.2023 – 13 Weeks)	04.12.2023	06.12.2023 (3 days)
10	Last date for submission of Project Work Review -III (Phase-II) Marks		09.12.2023
11	Submission of Thesis and Project Viva –Voce Examination (Phase-II) follows		---

\* After completion of 40 weeks from the date of approval of project work proposal and subject to approval of Project Work Review-III.

\*\* Phase-II will be conducted only for unsuccessful students in Phase -I

**Note:** 1 The unsuccessful students in Project Work Review-II (Phase-II) shall appear for Project Work Review-II at the time of Project Work Review-III. These students shall reappear for Project Work Review-III in the next academic year at the time of Project Work Review -I only after completion of Project Work Review -II and then Project Work Review -III follows.

2 The Project Viva-Voce External examination Marks must be submitted on the day of examination to the University.



Principal  
 Avanthi's Institute of Pharmaceutical Sciences  
 Gunthapally (V), Hayath Nader  
 Ranga Reddy Dist  
 10/10/22  
 REGISTRAR

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## ACADEMIC CALENDAR 2022-23

### B. Pharm. I YEAR I & II SEMESTERS

#### I SEM

S. No	Description	Duration	
		From	To
1	Commencement of I Semester classwork / Orientation programme	28.11.2022	
2	1 <sup>st</sup> Spell of Instructions (including Induction programme)	28.11.2022	21.01.2023 (8 Weeks)
3	First Mid Term Examinations	23.01.2023	30.01.2023 (1 Week)
4	Submission of First Mid Term Exam Marks to the University on or before	04.02.2023	
5	2 <sup>nd</sup> Spell of Instructions	31.01.2023	29.03.2023 (8 Weeks)
6	Second Mid Term Examinations	31.03.2023	08.04.2023 (1 Week)
7	Preparation Holidays and Practical Examinations	10.04.2023	15.04.2023 (1 Week)
8	Submission of Second Mid Term Exam Marks to the University on or before	15.04.2023	
9	End Semester Examinations	17.04.2023	29.04.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 93

#### II SEM

S. No	Description	Duration	
		From	To
1	Commencement of II Semester classwork	01.05.2023	
2	1 <sup>st</sup> Spell of Instructions (including Summer Vacation)	01.05.2023	08.07.2023 (10 Weeks)
3	<b>Summer Vacation</b>	15.05.2023	27.05.2023 (2 Weeks)
4	First Mid Term Examinations	10.07.2023	15.07.2023 (1 Week)
5	Submission of First Mid Term Exam Marks to the University on or before	22.07.2023	
6	2 <sup>nd</sup> Spell of Instructions	18.07.2023	11.09.2023 (8 Weeks)
7	Second Mid Term Examinations	12.09.2023	16.09.2023 (1 Week)
8	Preparation Holidays and Practical Examinations	19.09.2023	23.09.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before	23.09.2023	
10	End Semester Examinations	25.09.2023	07.10.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 92



**PRINCIPAL**  
 Avanthi's Institute of Pharmaceutical Sciences  
 Gunthapally (V), Hayath Nagar (M),  
 Ranga Reddy Dist.

**REGISTRAR**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**ACADEMIC CALENDAR 2022-23**

**B. Tech./B.Pharm. II YEAR I & II SEMESTERS**

**I SEM**

S. No	Description	Duration	
		From	To
1	Commencement of I Semester classwork		28.11.2022
2	1 <sup>st</sup> Spell of Instructions	28.11.2022	21.01.2023 (8 Weeks)
3	First Mid Term Examinations	23.01.2023	30.01.2023 (1 Week)
4	Submission of First Mid Term Exam Marks to the University on or before		04.02.2023
5	2 <sup>nd</sup> Spell of Instructions	31.01.2023	29.03.2023 (8 Weeks)
6	Second Mid Term Examinations	31.03.2023	08.04.2023 (1 Week)
7	Preparation Holidays and Practical Examinations	10.04.2023	15.04.2023 (1 Week)
8	Submission of Second Mid Term Exam Marks to the University on or before		15.04.2023
9	End Semester Examinations	17.04.2023	29.04.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 93

**II SEM**

S. No	Description	Duration	
		From	To
1	Commencement of II Semester classwork		01.05.2023
2	1 <sup>st</sup> Spell of Instructions (including Summer Vacation)	01.05.2023	08.07.2023 (10 Weeks)
3	<b>Summer Vacation</b>	15.05.2023	27.05.2023 (2 Weeks)
4	First Mid Term Examinations	10.07.2023	15.07.2023 (1 Week)
5	Submission of First Mid Term Exam Marks to the University on or before		22.07.2023
6	2 <sup>nd</sup> Spell of Instructions	18.07.2023	11.09.2023 (8 Weeks)
7	Second Mid Term Examinations	12.09.2023	16.09.2023 (1 Week)
8	Preparation Holidays and Practical Examinations	19.09.2023	23.09.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before		23.09.2023
10	End Semester Examinations	25.09.2023	07.10.2023 (2 Weeks)

Note: No. of Working / Instructional Days: 92



**PRINCIPAL**  
 Avanathi Institute of Pharmaceutical Sciences  
 Gunthapally (V), Hayath Nagar (M),  
 Ranga Reddy Dist.

*[Signature]*  
 24/11/22  
 REGISTRAR

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## ACADEMIC CALENDAR 2022-23

### B. Tech./B. Pharm. III YEAR I & II SEMESTERS

#### I SEM

S. No	Description	Duration	
		From	To
1	Commencement of I Semester classwork	09.09.2022	
2	1 <sup>st</sup> Spell of Instructions (including Dussehra Recess)	09.09.2022	10.11.2022 (9 Weeks)
3	Dussehra Recess	03.10.2022	08.10.2022 (1 Week)
4	First Mid Term Examinations	11.11.2022	17.11.2022 (1 Week)
5	Submission of First Mid Term Exam Marks to the University on or before	24.11.2022	
6	2 <sup>nd</sup> Spell of Instructions	18.11.2022	12.01.2023 (8 Weeks)
7	Second Mid Term Examinations	16.01.2023	21.01.2023 (1 Week)
8	Preparation Holidays and Practical Examinations	23.01.2023	28.01.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before	30.01.2023	
10	End Semester Examinations	30.01.2023	11.02.2023 (2 Weeks)

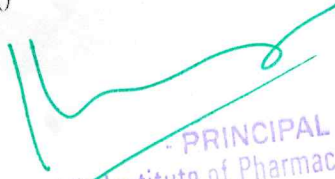
Note: No. of Working/ instructional days: 92


#### II SEM

S. No	Description	Duration	
		From	To
1	Commencement of II Semester classwork	13.02.2023	
2	1 <sup>st</sup> Spell of Instructions	13.02.2023	08.04.2023 (8 Weeks)
3	First Mid Term Examinations	10.04.2023	15.04.2023 (1 Week)
4	Submission of First Mid Term Exam Marks to the University on or before	22.04.2023	
5	2 <sup>nd</sup> Spell of Instructions (including Summer Vacation)	17.04.2023	24.06.2023 (10 Weeks)
6	<b>Summer Vacation</b>	15.05.2023	27.05.2023 (2 Weeks)
7	Second Mid Term Examinations	26.06.2023	01.07.2023 (1 Week)
8	Preparation Holidays and Practical Examinations	03.07.2023	08.07.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before	08.07.2023	
10	End Semester Examinations	10.07.2023	22.07.2023 (2 Weeks)

Note: No. of Working/ instructional days: 90



  
**PRINCIPAL**  
 Avanthi Institute of Pharmaceutical Sciences  
 Gunthapally (V), Hayath Nagar (M),  
 Ranga Reddy Dist.

  
**REGISTERAR**

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

## ACADEMIC CALENDAR 2022-23

### B. Tech./B. Pharm. IV YEAR I & II SEMESTERS

#### I SEM

S. No	Description	Duration	
		From	To
1	Commencement of I Semester classwork		29.08.2022
2	1 <sup>st</sup> Spell of Instructions (including Dussehra Recess)	29.08.2022	31.10.2022 (9 Weeks)
3	Dussehra Recess		
4	First Mid Term Examinations	03.10.2022	08.10.2022 (1 Week)
5	Submission of First Mid Term Exam Marks to the University on or before	01.11.2022	07.11.2022 (1 Week)
6	2 <sup>nd</sup> Spell of Instructions		12.11.2022
7	Second Mid Term Examinations	09.11.2022	03.01.2023 (8 Weeks)
8	Preparation Holidays and Practical Examinations	04.01.2023	10.01.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before	11.01.2023	19.01.2023 (1 Week)
10	End Semester Examinations		17.01.2023
		20.01.2023	02.02.2023 (2 Weeks)

Note: No. of Working/instructional days: 94

#### II SEM

S. No	Description	Duration	
		From	To
1	Commencement of II Semester classwork		03.02.2023
2	1 <sup>st</sup> Spell of Instructions		
3	First Mid Term Examinations	03.02.2023	31.03.2023 (8 Weeks)
4	Submission of First Mid Term Exam Marks to the University on or before	01.04.2023	08.04.2023 (1 Week)
5	2 <sup>nd</sup> Spell of Instructions		15.04.2023
6	Summer Vacation	10.04.2023	17.06.2023 (10 Weeks)
7	Second Mid Term Examinations	15.05.2023	27.05.2023 (2 Weeks)
8	Preparation Holidays and Practical Examinations	19.06.2023	24.06.2023 (1 Week)
9	Submission of Second Mid Term Exam Marks to the University on or before	26.06.2023	01.07.2023 (1 Week)
10	End Semester Examinations		01.07.2023
		03.07.2023	15.07.2023 (2 Weeks)

Note: No. of Working/ instructional days: 91



*[Signature]*

**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

*[Signature]*  
 REGISTRAR



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## INSTITUTIONAL ACADEMIC CALENDER

### ACADEMIC YEAR 2022-2023

S.NO	DATE	NAME OF THE EVENT
JUNE	01.06.2022	INSTITUTIONAL ACADEMIC COMMITTEE MEETING
JULY	01.07.2022	DEPARTMENT ACADEMIC COMMITTEE MEETING
	04.07.2022	COMMENCEMENT OF CLASSWORK FOR PHARM D IV & V YEAR AND I SPELL OF INSTRUCTIONS COMMENCEMENT OF INTERNSHIP IN GENERAL WARD
	14.07.2022	GOVERNING BODY MEETING
	25.07.2022	FINANCE COMMISSION MEETING
	27.07.2022	ANTI RAGGING COMMITTEE MEETING
AUG	29.08.2022	COMMENCEMENT OF 1 <sup>ST</sup> SEMESTER CLASSWORK FOR B.PHARM. IV YEAR
	29.08.2022- TO 31.10.2022	1 <sup>ST</sup> SPELL OF INSTRUCTIONS INCLUDING DUSSEERA RECESS FOR B.PHARM IV YEAR
	31.08.2022	VINAYAKA CHAVITHI COMMENCEMENT OF CLASSWORK FOR PHARM D III YEAR
SEPT	05.09.2022	TEACHER'S DAY
	02.09.2022	AWARENESS PROGRAM ON HIGHER EDUCATION
	30.09.2022	NATIONAL NUTRITION DAY
	09.09.2022	COMMENCEMENT OF 1 <sup>ST</sup> SEMESTER CLASSWORK FOR B.PHARM. III YEAR
	09.09.2022- 10.11.2022	1 <sup>ST</sup> SPELL OF INSTRUCTIONS INCLUDING DUSSEHRA FOR B.PHARM III YEAR
	25.09.2022	WORLD PHARMACIST DAY
	25.09.2022	BATHUKAMMA
	26.09.2022	I MID OF EXAMINATIONS FOR PHARM D IV & V YEAR
OCT	02.10.2022	GANDHI JAYANTHI-AWARENESS PROGRAMME ON NATIONAL PEACE
	03.10.2022- 8.10.2022	DUSSEHRA RECESS
	05.10.2022	VIJAYA DASAMI
	06.10.2022	FOLLOWING DAY OF VIJAYA DASAMI
	09.10.2022	EID MILADUN NABI

Committed to Excellence in Technical Education



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

	10.10.2022	II SPELL OF INSTRUCTION FOR PHARM D IV AND V YEARS
	18.10.2022	DEPARTMENT ACADEMIC COMMITTEE MEETING
	25.10.2022	DEEPAVALI
	26.10.2022	COMMENCEMENT OF CLASSWORK FOR M PHARM 1 <sup>ST</sup> YEAR I SPELL FOR M PHARM 1 <sup>ST</sup> YEAR I SEM
	31.10.2022	COMMENCEMENT OF CLASSWORK FOR PHARM D II YEAR
NOV	01.11.2022 TO 07.11.2022	FIRST MID TERM EXAMINATIONS FOR IV YEAR
	08.11.2022	KARTHIKA POURNAMI/GURUNANAK'S BIRTH DAY
	09.11.2022- TO 03.01.23	2 <sup>ND</sup> SPELL OF INSTRUCTIONS FOR B.PHARM IV YEAR
	11.11.2022 TO 17.11.2022	FIRST MID TERM EXAMINATIONS FOR III YEAR
	12.11.2022	SUBMISSION OF FIRST MID TERM EXAMINATION MARKS TO THE UNIVERSITY ON OR BEFORE
	14.11.2022	CHILDREN'S DAY CELEBRATIONS
	18.11.2022 TO 12.01.2022	2 <sup>ND</sup> SPELL OF INSTRUCTIONS FOR B.PHARM III YEAR
	20.11.22 to 26.11.2022	PLANNING TO CELEBRATE NATIONAL PHARMACY WEEK
	24.11.2022	SUBMISSION OF FIRST MID TERM EXAMINATION MARKS TO THE UNIVERSITY ON OR BEFORE
	28.11.2022	COMMENCEMENT OF I SEMESTER CLASSWORK FOR B.PHARM I,II YEAR COMMENCEMENT OF CLASSWORK OF PHARM D 1 <sup>ST</sup> YEAR
	28.11.2022- 21.01.2023	1 <sup>ST</sup> SPELL OF INSTRUCTIONS FOR B.PHARM I,II YEAR AND PHARM D 1 <sup>ST</sup> YEAR
	30.11.2022	INDUCTION PROGRAM/ ORIENTATION PROGRAM
DEC	01.12.2022	WORLD AIDS DAY
	05.12.2022	I MID EXAMS FOR PHARM D III YEAR
	10.12.2022	HUMAN RIGHTS DAY
	12.12.2022	II SPELL OF INSTRUCTION FOR PHARM D 3 <sup>RD</sup> YEAR
	20.12.2022	PLANNING FOR GUEST LECTURE
	20.12.2022 TO 30.12.2022	ANNUAL DAY CELEBRATIONS
	25.12.2022	CHRISTMAS

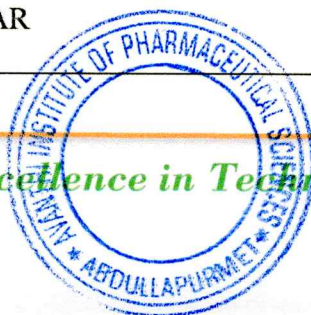
Committed to Excellence in Technical Education



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahpurmet (M),  
B. P. Dist. Talangana.

	26.12.2022	BOXING DAY
	29.12.2023	II SPELL EXAMINATIONS FOR M PHARM 1 <sup>ST</sup> YEAR
JAN	1 <sup>st</sup> Week	PLANNING FOR ANTI-RAGGING COMMITTEE MEETING
	01.01.2023	NEW YEAR
	02.01.2023	II MID OF EXAMINATIONS FOR PHARM D IV AND V YEAR
	03.01.2023	FRESHERS DAY CELEBRATIONS
	09.01.2023	III SPELL OF INSTRUCTIONS FOR PHARM D IV AND V YEARS
	4.01.2023 TO 10.01.2023	SECOND MID TERM EXMINATIONS FOR B.PHARM IV YEAR. REPORT SUBMISSION OF INTERNSHIP IN GENERAL WARD FOR PHARM D VI YEAR
	05.01.2023	COMMENCEMENT OF INTERNSHIP IN SPECIALITY WARD-1 FOR PHARM D VI YEAR
	11.01.2023	ANTI RAGGING COMMITTEE MEETING PONGALO CLEBRATIONS
	11.01.2023 TO 19.01.2023	PREPARATION HOLIDAYS AND PRACTICAL EXAMINATION FOR B.PHARM.IV YEAR
	12.01.2023	NATIONAL YOUTH DAY
	14.01.2023	MAKARA SANKRANTHI
	15.01.2023	PONGAL
	16.01.2023 TO 21.01.2023	SECOND MID TERM EXAMINATIONS FOR B.PHARM.III YEAR
	17.01.2023	SUBMISSION OF SECOND MID TERM EXAMINATION MARKS TO THE UNIVERSITY ON OR BEFORE
	21.01.2023	IQAC MEETING
	20.01.2023 TO 02.02.2023	END SEMESTER EXAMINATION FOR B.PHARM IV YEAR
	23.01.2023 TO 30.01.2023	FIRST MID EXAMINATIONS FOR B.PHARM.I,II YEAR
	24.01.2023	BETI-BACHAO-BETI PADAOW AWARENESS PROGRAM
	28.01.2023	SAVE GIRL CHILD AWARENESS PROGRAM
	23.11.2023- TO 28.01.2023	PREPARATION HOLIDAYS AND PRACTICAL EXAMINATION FOR B.PHARM.III YEAR
	30.01.2023 TO 11.02.2023	END SEMESTER EXAMINATIONS FOR B.HARM.III YEAR

*Committed to Excellence in Technical Education*



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

	26.01.2023	REPUBLIC DAY CELEBRATIONS
	30.01.2023	SUBMISSION OF SECOND MID TERM EXAMINATION MARKS TO THE UNIVERSITY ON OR BEFORE
	31.01.2023 TO 29.03.2023	2 <sup>ND</sup> SPELL OF INSTRUCTIONS FOR B.PHARM I,II YEAR
FEB	03.02.2023	COMMENCEMENT OF II SEMESTER CLASSWORK FOR B.PHARM IV YEAR
	03.02.2023-31.3.23	1 <sup>ST</sup> SPELL OF INSTRUCTIONS FOR B.PHARM.IV YEAR
	04.02.23	SUBMISSION OF FIRST MID TERM MARKS TO THE UNIVERSITY ON OR BEFORE
	06.02.2023	II SPELL OF INSTRUCTION
	06.02.2023 TO 10.02.2023	FACULTY DEPARTMENT PROGRAMME
	2 <sup>nd</sup> Week	PLANNING FOR PARENT TEACHER MEETING
	13.02.2023	COMMENCEMENT OF II SEMESTER CLASSWORK FOR B.PHARM III YEAR
	13.02.2023 TO 08.04.2023	1ST SPELL OF INSTRUCTIONS FOR B.PHARM I,II YEAR
	18.02.2023	MAHASHIVARATRI
	27.02.2023	II MID OF EXAMINATIONS FOR M PHARM 1ST YEAR
	06.03.2023	I MID OF EXAMINATION OF PHARM D 1 <sup>ST</sup> AND IIIYEAR REPORT SUBMISSION OF INTERNSHIP IN SPECIALITY WARD-1 FOR PHARM D VI YEAR PREPARTION AND PRATICALS FOR M PHARM 1 <sup>ST</sup> YEAR
MARCH	07.03.2023	HOLI COMMENCEMENT OF INTERNSHIP IN SPECIALITY WARD-2 FOR PHARM D VI YEAR
	11.03.2023	TRADITIONAL DAY
	13.03.2023	II SPELL OF INSTRUCTION FOR PHARM D 1 <sup>ST</sup> III YEAR END EXAMINATIONS FOR M PHARM 1 <sup>ST</sup> YEAR
	16.03.2023	COLLEGE ACADEMY COMMITTEE MEETING
	08.03.2023	WOMEN'S DAY CELEBRATIONS
	16.03.2023 TO 17.03.2023	SPORTS AND CULTURAL ACTIVITIES ON THE OCCASION OF BIO-ADHYAYAN 2K23 COMMENCEMENT OF II SEMESTER (PROJECT WORK CONTINUATION) M PHARM II YEAR PROJECT WORK REVIEW-II (PHASE-I)
	21.03.2023	TREE PLANTATION, WATER CONSERVATION DAY

*Committed to Excellence in Technical Education*



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

	22.03.2023	UGADI
	27.03.2023	COMMENCEMENT OF CLASSWORK FOR M PHARM 2 <sup>ND</sup> SEM AND I SPELL OF INSTRUCTION
	30.03.2023	RAM NAVAMI
	31.03.2023	NSS VOLUNTEERS ORIENTATION
	31.03.2023 TO 08.04.2023	SECOND MID TERM EXAMINATIONS FOR B.PHARM.I,II YEAR
APRIL	01.04.2023 TO 8.04.2023	FIRST MID TERM EXAMINATIONS FOR B.PHARM IV YEAR
	03.04.2023	III MID OF EXAMINATIONS FOR PHARM D IV And V YEARS
	05.04.2023	BABU JAGJIVAN RAM JAYANTI
	07.04.2023	GOOD FRIDAY
	10.04.2023	AWARENESS ON WOMEN SAFETY MEASURES
	10.04.2023 TO 17.06.2023	2 <sup>ND</sup> SPELL OF INSTRUCTIONS INCLUDING SUMMER VACATION FOR B.PHARM IV YEAR
	10.04.2023 TO 15.04.2023	PREPARATION HOLYDAYS AND PRACTICAL EXAMINATION FOR I YEAR, FIRST MID TERM EXAMINATIONS FOR B.PHARM III YEAR
	14.04.2023	Dr. AMBEDKAR JAYANTI
	15.04.2023	SUBMISSION OF SECOND MID TERM EXAMINATION MARKS TO THE UNIVERSITY ON OR BEFORE
	17.04.2023-29.04.2023	END SEMESTER EXAMINATION FOR B.PHARM I,II YEAR
	11.04.2023	PROJECT WORK REVIEW (PHASE-II) FOR M PHARM
	17.04.2023 TO 24.06.2023	2 <sup>ND</sup> SPELL OF INSTUCTIONS INCLUDING SUMMER VACATION FOR III YEAR
	20.04.2023	WORLD EARTH DAY LAST DATE FOR SUBMISSION OF PRC-II FOR M PHARM II YEAR
	24.04.2023	END EXAMINATIONS FOR PHARM D IV AND V YEARS
	22.04.2023	SUBMISSION OF FIRST MID TERM EXAM MARKS TO THE UNIVERSITY ON OR BEFORE IDUL FITR
MAY	01.05.2023	COMMENCEMENT OF II SEMESTER CLASSWORK FOR B.PHARM I,II YEAR II MID FOR PHARM D 2 <sup>ND</sup> YEAR
	01.05.2023-08.07.2023	1 <sup>ST</sup> SPELL OF INSTRUCTIONS INCLUDING SUMMER VACATION FOR B.PHARM I,II YEAR
	05.05.2023	PLANNING FOR GUEST LECTURE

*Committed to Excellence in Technical Education*



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

	15.05.2023-19.05.2023	ADD ON/VALUE ADDED COURSES FOR ALL B.PHARM,M.PHARM & PHARM.D STUDENTS
	08.05.2023	III SPELL OF INSTRUCTION FOR PHARM D 2 <sup>ND</sup> YEAR REPORT SUBMISSION OF INTERNSHIP IN SPECIALITY WARD -2 FOR PHARM D VI YEAR
	09.05.2023	COMMENCEMENT OF INTERNSHIP IN SPECIALITY WARD-3 FOR PHARM D VI YEAR
	17.05.2023	GOVERNING BODY MEETING
	15.05.2023-27.05.2023	SUMMER VACATION
	28.05.2023	WORLD NUTRITION DAY
JUNE	19.06.2023 TO 24.06.2023	SECOND MID TERM EXAMINATIONS FOR B.PHARM.IV YEAR AND III MID PHARM D 1 <sup>ST</sup> AND III YEAR
	05.06.2023	I MID OF EXAMINATIONS FOR M PHARM II SEM
	12.06.2023	II SPELL OF INSTRUCTIONS FOR M PHARM II SEM
	26.06.2023-01.07.2023	SECOND MID TERM EXAMINATIONS FOR B.PHARM III YEAR PREPARATION HOLYDAYS AND PRACTICAL EXAMINATIONS FOR B.PHARM.IV AND III YEAR AND III SPELL FOR PHARM D 1 <sup>ST</sup> YEAR
	29.06.2023	BAKRID
JULY	01.07.2023	SUBMISSION OF SECOND MID TERM EXAMINATION MARKS TO THE UNIVERSITY ON OR BEFORE
	03.07.2023-15.07.2023	END SEMESTER EXAMINATIONS
	03.07.2023-8.07.2023	PREPARATION HOLIDAYS AND PRACTICAL EXAMINATIONS FOR B.PHARM III YEAR
	08.07.2023	SUBMISSION OF SECOND MID TERM EXAM MARKS TO THE UNIVERSITY ON OR BEFORE
	10.07.2023-15.07.2023	FIRST MID TERM EXAMINATIONS FOR B.PHARM.I,II YEAR
	10.07.2023-22.07.2023	REPORT SUBMISSION OF INTERNSHIP IN SPECIALITY WARD-3 FOR PHARM D VI YEAR END SEMESTER EXAMINATIONS FOR III YEAR
	12.07.2023	FINAL VIVA OF INTERNSHIP
	17.07.2023	BONALU
	22.07.2023	SUBMISSION OF FIRST MID TERM EXAM MARKS TO THE UNIVERSITY ON OR BEFORE
	18.07.2023-11.09.2023	2 <sup>ND</sup> SPELL OF INSTRUCTIONS FOR B.PHARM II YEAR
	29.07.2023	MOHARAM
AUG	15.08.2023	INDEPENDENCE DAY

Committed to Excellence in Technical Education



AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

	09.08.2023	II MID OF EXAMINATIONS FOR M PHARM II SEM
	14.08.2023	III MID EXAMS FOR PHARM D II YEAR
	17.08.2023	PREPARATION AND PRATICALS FOR M PHARM I YEAR II SEM
	21.08.2023	PREPARATION AND PRATICALS
	28.08.2023	PROJECT WORK REVIEW-III FOR M PHARM
	24.08.2023	END EXAMINATIONS FOR M PHARM II SEM
SEPT	07.09.2023	SRI KRISHNA ASTAMI
	04.09.2023	END EXAMINATIONS FOR PHARM D 2 <sup>ND</sup> YEARS
	09.09.2023	LAST DATE FOR SUBMISSION OF PROJECT WORK REVIEW-III FOR M PHARM DATE OF ELIGIBILITY OF THESIS SUBMISSION
	12.09.2023-16.09.2023	SECOND MID TERM EXAMINATIONS FOR B.PHARM II YEAR
	18.09.2023	VINAYAKA CHAVITHI
	23.09.2023	SUBMISSION OF SECOND MID TERM EXAM MARKS TO THE UNIVERSITY ON OR BEFORE
	25.09.2023-07.10.2023	END SEMESTER EXAMINATIONS FOR II YEAR AND PREPARATION AND PRATICALS FOR PHARM D 1 <sup>ST</sup> YEAR
	28.09.2023	EID MULADUN NABI
OCT	02.10.2023	MAHATMA GANDHI JAYANTHI
	14.10.2023	BATHUKAMMA
	24.10.2023	VIJAYA DASAMI
NOV	12.11.2023	DEEPAVALI
	19.11.2023 To 25.11.2023	PHARMACY WEEK CELEBRATIONS
	27.11.2023	KARTHIKA PURNIMA
DEC	04.12.2023	PROJECT WORK REVIEW-III (PHASE-III) FOR M PHARM II YEAR
	09.12.2023	LAST DATE FOR SUBMISSION OF PROJECT WORK REVIEW-III (PHASE-III) FOR M PHARM II YEAR



  
**PRINCIPAL**  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### ACADEMIC CALENDER 2022-2023

#### B. PHARMACY

EVENT	I YEAR		II YEAR		III YEAR		IV YEAR	
EVENT	SEM I	SEM II	SEM I	SEM II	SEM I	SEM II	SEM I	SEM II
COMMENCEMENT OF CLASSWORK	28-11-2022	01-05-2023	28-11-2023	01-05-2023	09-09-2022	13-02-2023	29-08-2022	03-02-2023
I SPELL OF INSTRUCTION	28-11-2022	01-05-2023	28-01-2023	01-05-2023	09-09-2022	13-02-2023	29-08-2022	03-02-2023
I MID OF EXAMINATION	23-01-2023	10-07-2023	23-01-2023	10-07-2023	11-11-2022	10-04-2023	01-11-2022	01-04-2023
II SPELL OF INSTRUCTION	31-01-2022-2023	18-07-2023	31-01-2023	18-07-2023	18-11-2022	17-04-2023	09-11-2022	10-04-2023
II MID OF EXAMINATION	31-03-2023	12-09-2023	31-03-2023	12-09-2023	16-01-2023	26-06-2023	04-01-2023	19-06-2023
PREPARATION AND PRACTICALS	10-04-2023	19-09-2023	10-04-2023	19-09-2023	23-01-2023	03-07-2023	11-01-2023	26-06-2023
END EXAMINATIONS	17-04-2023	25-09-2023	17-04-2023	25-09-2023	30-01-2023	10-07-2023	20-01-2023	03-07-2023

MR. K. R. K.  
HOD



PRINCIPAL

PRINCIPAL

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### ACADEMIC CALENDER 2022-2023

#### M PHARM I & II YEAR

EVENT	I YEAR	
EVENT	SEM-I	SEM-II
COMMENCEMENT OF CLASSWORK	26-10-2022	27-03-2023
I SPELL OF INSTRUCTION	26-10-2022	27-03-2023
I MID OF EXAMINATION	21-12-2022	05-06-2023
II SPELL OF INSTRUCTION	29-12-2022	12-06—2023
II MID OF EXAMINATION	27-02-2023	09-08-2023
PREPARATION AND PRACTICALS	06-03-2023	17-08-2023
END EXAMINATIONS	13-03-2023	24-08-2023

S.NO	DESCRIPTION	II YEAR
1	COMMENCEMENT OF II SEMESTER (PROJECT WORK CONTINUATION)	17-03-2023
2	PROJECT WORK REVIEW –II (PHASE-I)	17-03-2023
3	PROJECT WORK REVIEW (PHASE-II)	11-04-2023
4	LAST DATE FOR SUBMISSION OF PRC –II	20-04-2023
5	PROJECT WORK REVIEW-III	28-08-2023
6	LAST DATE FOR SUBMISSION OF PROJECT WORK REVIEW-III	09-09-2023
7	DATE OF ELIGIBILITY OF THESIS SUBMISSION	09-09-2023
8	SUBMISSION OF THESIS AND PROJECT VIVA VOCE EXAMINATION	-
9	PROJECT WORK REVIEW-III (PHASE-III)	04-12-2023
10	LAST DATE FOR SUBMISSION OF PROJECT WORK REVIEW-III (PHASE-III)	09-12-2023
11	SUBMISSION OF THESIS AND PROJECT VIVA VOCE EXAMINATION (PHASE-II)	-

MR. K. K. K.  
HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACTICE

### ACADEMIC CALENDER 2022-2023

#### PHARM.D I YEAR – VI YEAR

DESCRIPTION	I YEAR	II YEAR	III YEAR	IV YEAR	V YEAR
COMMENCEMENT OF CLASSWORK	28-11-2022	31-10-2022	05-09-2022	04-07-2022	04-07-2022
I SPELL OF INSTRUCTION	28-11-2022	31-01-2023	05-09-2022	04-07-2022	04-07-2022
I MID OF EXAMINATION	06-03-2023	30-01-2023	05-12-2022	26-09-2022	26-09-2022
II SPELL OF INSTRUCTION	13-03-2023	06-02-2023	12-12-2022	10-10-2022	10-10-2022
II MID OF EXAMINATION	19-06-2023	01-05-2023	06-03-2023	02-01-2023	02-01-2023
III SPELL OF INSTRUCTION	26-06-2023	08-05-2023	13-03-2023	09-01-2023	09-01-2023
III MID OF EXAMINATION	19-06-2023	14-08-2023	19-06-2023	03-04-2023	03-04-2023
PREPARATION AND PRACTICALS	26-09-2023	21-08-2023	26-06-2023	10-04-2023	10-04-2023
END EXAMINATIONS	10-10-2023	04-09-2023	10-07-2023	24-04-2023	24-04-2023
CLOSING PG INTERNSHIP (12 MONTHS)	-	-	-	-	

S.NO	DESCRIPTION	VI YEAR
1	COMMENCEMENT OF INTERNSHIP IN GENERAL WARD	04-07-2022
2	REPORT SUBMISSION OF INTERNSHIP IN GENERAL WARD	04-01-2023
3	COMMENCEMENT OF INTERNSHIP IN SPECIALITY WARD-1	05-01-2023
4	REPORT SUBMISSION OF INTERNSHIP IN SPECIALITY WARD -1	06-03-2023
5	COMMENCEMENT OF INTERNSHIP IN SPECIALITY WARD-2	07-03-2023
6	REPORT SUBMISSION OF INTERNSHIP IN SPECIALITY WARD -2	08-05-2023
7	COMMENCEMENT OF INTERNSHIP IN SPECIALITY WARD-3	09-05-2023
8	REPORT SUBMISSION OF INTERNSHIP IN SPECIALITY WARD -3	10-07-2023
9	FINAL VIVA OF INTERNSHIP	12-07-2023

*Angula B.*  
HOD



PRINCIPAL  
PRINCIPAL

Committed to Excellence in Technical Education

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
(Established by Act No. 30 of 2008)  
Kukatpally, Hyderabad, Telangana (India).

**ACADEMIC REGULATIONS OF B.PHARM. (REGULAR/FULL TIME) STUDENTS**  
**WITH EFFECT FROM THE ACADEMIC YEAR 2022-23 (R-22)**

**1.0 Under-Graduate Degree Programme in Pharmacy**

- 1.1 JNTUH offers a 4-year (8 semesters) Bachelor of Pharmacy (B.Pharm.) degree programme, under Choice Based Credit System (CBCS) at its affiliated colleges with effect from the academic year 2022-23.

**2.0 Eligibility for admission**

- 2.1 Admission to the under graduate programme shall be made either on the basis of the merit rank obtained by the qualified candidate in entrance test conducted by the Telangana State Government (EAMCET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.
- 2.2 The medium of instructions for the entire under graduate programme in Pharmacy will be **English** only.

**3.0 B.Pharm. Programme structure**

- 3.1 A student after securing admission shall pursue the under graduate programme in B.Pharm. in a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years (16 semesters) starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Pharm course.

A student shall register for all subjects for covering **209** credits and each student shall secure **209** credits (with CGPA  $\geq 6$ ) required for the completion of the under graduate programme and award of the B.Pharm. degree.

- 3.2 UGC/ PCI specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

**3.2.1 Semester scheme**

Each under graduate programme is of 4 academic years (8 semesters) with the academic year being divided into two semesters of 23 weeks ( $\geq 100$  instructional days) each, each semester shall have - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and curriculum/ course structure as suggested by PCI are followed.

**3.2.2 Credit courses**

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (lecture periods: tutorial periods: practical periods: credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses.

- One credit for two hours/ week/ semester for laboratory/ practical (P) courses or tutorials (T).

Courses like Environmental Sciences, Human Values and Professional Ethics, Gender Sensitization Laboratory and student activities like NCC/NSO and NSS are identified as mandatory courses. These courses will not carry any credits.

### 3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in Pharmacy (B.Pharm. degree programmes) are broadly classified as follows. The university has followed almost all the guidelines issued by PCI/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1	Foundation Courses (FnC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects.
2		PS - Pharmaceutical Sciences	Includes fundamental Pharmacy Subjects.
3		HS – Humanities and Social sciences	Includes subjects related to humanities; social sciences and management.
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline.
5	Elective Courses (ElC)	OE – Open Electives	Includes elective subjects related to inter-disciplinary areas of Pharmacy or other than Pharmacy
6	Core Courses	Project Work	B.Pharm. project or UG project or UG major project
7		Seminar	Seminar/ Colloquium based on core contents related to parent discipline.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)

### 4.0 Course registration

- 4.1 A 'faculty advisor or counselor' shall be assigned to a group of 15 students, who will advise student about the under graduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The academic section of the college invites 'registration forms' from students before the beginning of the semester through 'on-line registration', ensuring 'date and time stamping'. The on-line registration requests for any 'current semester' shall be **completed before the commencement of semester end examinations of the 'preceding semester'**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the '**written approval**' from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor/ counselor and the student.
- 4.5 If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** registration for the subject(s)/ course(s) under a given/ specified course group/ category as listed in

the course structure, only the first mentioned subject/ course in that category will be taken into consideration.

- 4.6 Subject/ course options exercised through **on-line** registration are final and **cannot** be changed or inter-changed; further, alternate choices also will not be considered. However, if the subject/ course that has already been listed for registration by the Head of the Department in a semester could not be offered due to any unforeseen or unexpected reasons, then the student shall be allowed to have alternate choice either for a new subject (subject to offering of such a subject), or for another existing subject (subject to availability of seats). Such alternate arrangements will be made by the Head of the Department, with due notification and time-framed schedule, within the **first week** after the commencement of class-work for that semester.
- 4.7 **Open Electives:** Students have to choose one open elective (OE-I) in III year I semester, one (OE-II) in III year II semester, one (OE-III) in IV year I semester and one (OE-IV) in IV year II semester from the list of Open Electives.
- 5.0 **Subjects/ courses to be offered**
- 5.1 A typical section (or class) strength for each semester shall be 60.
- 5.2 A subject/ course may be offered to the students, **only if** a minimum of 20 students (1/3 of the section strength) opt for it. The maximum strength of a section is limited to 80 (60 + 1/3 of the section strength).
- 5.3 If more entries for registration of a subject come into picture, then the Head of Department shall decide, whether or not to offer such a subject/ course for **two (or multiple) sections**.
- 6.0 **Attendance requirements:**
- 6.1 Attendance in all Courses (Lectures/Laboratories/Seminar/Project Work) is compulsory. The minimum required attendance in aggregate of all the subjects/ courses including the attendance of mid-term examination/ Laboratory etc. is **80%**. Two periods of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject. A student shall not be permitted to appear for the Semester End Examinations (SEE), if his attendance is less than **80%** (excluding attendance in mandatory courses like Environmental Sciences, Human Values and Professional Ethics, Gender Sensitization Laboratory, NCC/NSO, NSS and Industrial Training) for that semester.
- 6.2 Condoning of shortage of attendance (between 70% and 80%) up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and Medical grounds) in each semester shall be granted by the College Academic Committee on genuine and valid grounds, based on the student's representation with supporting evidence.
- 6.3 A stipulated fee shall be payable towards condoning of shortage of attendance.
- 6.4 Shortage of attendance below 70% in aggregate shall in **no case be condoned**.
- 6.5 **Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examinations of that semester. They get detained and their registration for that semester shall stand cancelled. They will not be promoted to the next semester.** They may seek re-registration for all those subjects registered in that semester in which student was detained, by seeking re-admission into that semester as and when offered; in case if there are any open electives, the same may also be re-registered if offered. However, if those electives are not offered in later semesters, then alternate electives may be chosen from the **same** set of elective subjects offered under that category.

- 6.6 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same class.

## 7.0 Academic requirements

The following academic requirements have to be satisfied, in addition to the attendance requirements mentioned in item no. 6.

- 7.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course, if student secures not less than 40% marks (30 out of 75 marks) in the semester end examination, and a minimum of 50% of marks in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of letter grades, this implies securing 'D' grade or above in that subject/ course. For practicals/laboratory courses, a student should secure not less than 50% of marks in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of letter grades, this implies securing 'D' grade or above.
- 7.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Practice School (or) Industrial Training if the student secures not less than 50% marks (i.e. 50 out of 100 allotted marks) in each of them. The student is deemed to have failed, if he (i) does not submit a report on Practice School (or) Industrial Training, (ii) does not make a presentation of the same before the evaluation committee as per schedule, or (iii) secures less than 50% marks in Practice School (or) Industrial Training evaluations. A student may reappear once for each of the above evaluations, when they are scheduled again; if the student fails in such 'one reappearance' evaluation also, the student has to reappear for the same in the next subsequent semester; as and when it is scheduled.

## 7.3 Promotion Rules

S. No.	Promotion	Conditions to be fulfilled
1	First year to second year	Regular course of study of first year.
2	Second year to third year	(i) Regular course of study of second year. (ii) Must have passed all the subjects/ courses up to I Year II Semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3	Third year to fourth year	(i) Regular course of study of third year. (ii) Must have passed all the subjects/ courses up to II Year II Semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.

- 7.3 A student shall register for all subjects covering **209 credits** as specified and listed in the course structure, fulfills all the attendance and academic requirements for 209 credits, 'earn all 209 credits' by securing SGPA  $\geq 6.0$  (in each semester) and CGPA (at the end of each successive semester)  $\geq 6.0$  to successfully complete the under graduate programme.
- 7.4 After securing the necessary 209 credits as specified for the successful completion of the entire under graduate programme, the student shall be eligible to get his CGPA and shall be indicated in the grade card of IV year II semester. However, the performance of student in the earlier individual semesters, with the corresponding SGPA and CGPA for which grade cards have already been given will not be altered.

- 7.5 If a student registers for some more 'extra subjects' other than those listed subjects totaling to **209 credits** as specified in the course structure, the performances in those 'extra subjects' (although evaluated and graded using the same procedure as that of the required **209 credits**) will not be considered while calculating the SGPA and CGPA. For such 'extra subjects' registered, % of marks and letter grade alone will be indicated in the grade card as a performance measure, subject to completion of the attendance and academic requirements as stated in regulations 6 and 7.1 – 7.4 above.
- 7.6 A student eligible to appear in the end semester examination for any subject/ course, but absent from it or failed (thereby failing to secure 'D' grade or above) may reappear for that subject/ course in the supplementary examination as and when conducted. In such cases, CIE assessed earlier for that subject/ course will be carried over, and added to the marks to be obtained in the SEE supplementary examination for evaluating performance in that subject.
- 7.7 A student **detained in a semester due to shortage of attendance**, may be re-admitted when **the same semester is offered in the next academic year for fulfillment of academic requirements**. The academic regulations under which student has been readmitted shall be applicable. However, no grade allotments or SGPA/ CGPA calculations will be done for the entire semester in which student has been detained.
- 7.8 A student detained **due to unfulfillment of promotion rules**, shall be promoted to the next **academic year only after fulfilling the promotion rules**. The academic regulations under which student has been readmitted shall be applicable to him.
- Note:** (1) The SGPA will be computed and printed on the marks memo only if the candidate passes in all the subjects offered and gets minimum 'D' grade in all the subjects.  
 (2) CGPA is calculated only when the candidate passes in all the subjects offered in all the semesters.

## 8.0 Evaluation - Distribution and Weightage of marks

- 8.1 The performance of a student in every theory subject/course will be evaluated for 100 marks, with 25 marks allotted for CIE (Continuous Internal Evaluation) and 75 marks for SEE (Semester End-Examination).
- 8.2 In CIE, for theory subjects, during a semester, there shall be two mid-term examinations. Each Mid-Term examination consists of two parts i) **Part – A** for 10 marks, ii) **Part – B** for 10 marks with a total duration of 2 hours as follows:
1. Mid Term Examination for 20 marks:
    - a. Part - A: 10 Multiple Choice/ Objective Questions paper for 10 marks.
    - b. Part - B: Descriptive paper for 10 marks. Long Answer Questions for 5 marks (answer 1 out of 2). Short Answer Questions for 5 marks (answer 2 out of 3, each carries 2.5 marks).

While the first mid-term examination shall be conducted on 50% of the syllabus, the second mid-term examination shall be conducted on the remaining 50% of the syllabus.

Five (5) marks are allocated for assignments (as specified by the subject teacher concerned). The first assignment should be submitted before the conduct of the first mid-term examination, and the second assignment should be submitted before the conduct of the second mid-term examination. The average of the two assignments shall be taken as the final marks for assignment (for 5 marks).

The average of marks secured in the Two Mid-term examinations, along with the average marks secured in the two assignments will be considered as the final marks secured by a student in the CIE.

8.3 The details of the end semester question paper pattern are as follows,

- The end semester examinations will be conducted for 75 marks consisting of two parts viz. i) **Part- A** for 25 marks, ii) **Part - B** for 50 marks.
- Part-A is compulsory question which consists of fifteen sub-questions. The first ten sub-questions are of Objective type/ Multiple Choice Questions, 2 from each unit and carry 1 mark each. The next five sub-questions are Short Answer Questions one from each unit and carry 3 marks each.
- Part-B consists of five Long Answer Questions (numbered from 2 to 6) carrying 10 marks each. Each of these questions is from one unit and may contain sub-questions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions.

8.3 For practical subjects there shall be a Continuous Internal Evaluation (CIE) during the semester for 15 marks and 35 marks for semester end examination. Out of the 15 marks for internal evaluation:

1. A write-up on day-to-day experiment in the laboratory (in terms of aim, components/procedure, expected outcome) which shall be evaluated for 5 marks
2. 5 marks for viva-voce in the course concerned.
3. Internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 5 marks.

The Semester End Examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the cluster/other colleges which will be decided by the examination branch of the University.

In the Semester End Examination held for 3 hours, total 35 marks are divided and allocated as shown below:

1. 05 marks for Synopsis
2. 25 for experiment
3. 05 marks for viva-voce on concerned laboratory course

A student has to secure 25 marks (i.e. 50% out of the 50 marks) allotted for CIE and SEE taken together.

8.4 There shall be an Industrial Training in IV year I semester. For the Industrial Training, the student shall be required to work for at least 150 hours spread over four weeks in a Pharmaceutical Industry/Hospital. It includes Production unit, Quality Control department, Quality Assurance department, Analytical laboratory, Chemical manufacturing unit, Pharmaceutical R&D, Hospital (Clinical Pharmacy), Clinical Research Organization, Community Pharmacy, etc. After the IV year I semester and before the commencement of IV year II semester, the student shall submit satisfactory report of the work and certificate duly signed by the authority of training organization to the head of the institute.

8.5 **Practice School:** In the IV year I semester, every candidate shall undergo a practice school for a period of 150 hours evenly distributed throughout the semester. The student shall opt any one of the domains for practice school declared by the departmental committee from time to time. At the end of the practice school, every student shall submit a printed report (in triplicate) on the practice school he/she attended (not more than 25 pages). The report shall be submitted to the departmental committee consisting of Head of the Institution, Head of the Department and a senior faculty member. The practice school report shall be evaluated for 100 marks and grade point shall be awarded.

- 8.6 All the students shall undertake a UG major project under the supervision of a teacher and submit a report. The area of the project shall directly relate any one of the elective subject opted by the student in semester VIII. The project shall be carried out in group not exceeding 5 in number. The project report shall be submitted in triplicate (typed & bound copy not less than 25 pages).

The internal and external examiner appointed by the University shall evaluate the project at the time of the Practical examinations of other semester(s). Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of five students). The projects shall be evaluated as per the criteria given below.

**Evaluation of Dissertation Book (Internal Evaluation):**

Objective(s) of the work done	- 15 Marks
Methodology adopted	- 20 Marks
Results and Discussions	- 20 Marks
Conclusions and Outcomes	- 20 Marks
<b>Total</b>	<b>- 75 Marks</b>

**Evaluation of Presentation (External Evaluation):**

Presentation of work	- 25 Marks
Communication skills	- 20 Marks
Viva-Voce	- 30 Marks
<b>Total</b>	<b>- 75 Marks</b>

The **75 marks** assigned to the **dissertation book** shall be **same for all the students** in a group. However, the 75 marks assigned for presentation shall be awarded based on the performance of individual students in the given criteria. A student has to secure 75 marks (i.e. 50% of the allotted 150 marks) to be declared successful in the project.

- 8.7 For mandatory courses Environmental Science, Human Values and Professional Ethics, Gender Sensitization Lab and Industrial Training a student has to secure 50 marks out of 100 marks (i.e. 50% of the marks allotted) in the continuous internal evaluation for passing the subject/course.
- 8.8 For mandatory courses NCC/ NSO and NSS, a 'satisfactory participation certificate' shall be issued to the student from the authorities concerned, only after securing  $\geq 80\%$  attendance in such a course.
- 8.9 No marks or letter grade shall be allotted for all mandatory/non-credit courses.
- 9.0 **Grading procedure**
- 9.1 Marks will be awarded to indicate the performance of student in each theory subject, laboratory / practicals and UG major project. Based on the percentage of marks obtained (Continuous Internal Evaluation plus Semester End Examination, both taken together) as specified in item 8 above, a corresponding letter grade shall be given.
- 9.2 As a measure of the performance of student, a 10-point absolute grading system using the following letter grades (as per UGC/ PCI guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Subject/Course (Class Intervals)	Letter Grade (UGC Guidelines)	Grade Points
Greater than or equal to 90%	O (Outstanding)	10
80 and less than 90%	A (Excellent)	9
70 and less than 80%	B (Good)	8
60 and less than 70%	C (Fair)	7

50 and less than 60%	D (Average)	6
Below 50%	F (FAIL)	0
Absent	Ab	0

- 9.3 A student obtaining 'F' grade in any subject shall be deemed to have 'failed' and is required to reappear as a 'supplementary student' in the semester end examination, as and when offered. In such cases, internal marks in those subjects will remain the same as those obtained earlier.
- 9.4 A student who has not appeared for examination in any subject, 'Ab' grade will be allocated in that subject, and student shall be considered 'failed'. Student will be required to reappear as a 'supplementary student' in the semester end examination, as and when offered.
- 9.5 A letter grade does not indicate any specific percentage of marks secured by the student, but it indicates only the range of percentage of marks.
- 9.6 A student earns grade point (GP) in each subject/ course, on the basis of the letter grade secured in that subject/ course. The corresponding 'credit points' (CP) are computed by multiplying the grade point with credits for that particular subject/ course.

**Credit points (CP) = grade point (GP) x credits .... For a course**

- 9.7 The student passes the subject/ course only when  $GP \geq 6$  ('D' grade or above)
- 9.8 The semester grade point average (SGPA) is calculated by dividing the sum of credit points ( $\Sigma CP$ ) secured from all subjects/ courses registered in a semester, by the total number of credits registered during that semester. SGPA is rounded off to **two** decimal places. SGPA is thus computed as

$$SGPA = \{ \sum_{i=1}^N C_i G_i \} / \{ \sum_{i=1}^N C_i \} \dots \text{For each semester,}$$

where 'i' is the subject indicator index (takes into account all subjects in a semester), 'N' is the no. of subjects 'registered' for the semester (as specifically required and listed under the course structure of the parent department),  $C_i$  is the no. of credits allotted to the  $i^{th}$  subject, and  $G_i$  represents the grade points (GP) corresponding to the letter grade awarded for that  $i^{th}$  subject.

- 9.9 The cumulative grade point average (CGPA) is a measure of the overall cumulative performance of a student in all semesters considered for registration. The CGPA is the ratio of the total credit points secured by a student in **all** registered courses in **all** semesters, and the total number of credits registered in **all** the semesters. CGPA is rounded off to **two** decimal places. CGPA is thus computed from the I year II semester onwards at the end of each semester as per the formula

$$CGPA = \{ \sum_{j=1}^M C_j G_j \} / \{ \sum_{j=1}^M C_j \} \dots \text{for all S semesters registered}$$

(i.e., up to and inclusive of S semesters,  $S \geq 2$ ),

where 'M' is the **total** no. of subjects the student has 'registered' i.e., from the 1<sup>st</sup> semester onwards up to and inclusive of the 8<sup>th</sup> semester, 'j' is the subject indicator index (takes into account all subjects from 1 to 8 semesters),  $C_j$  is the no. of credits allotted to the  $j^{th}$  subject, and  $G_j$  represents the grade points (GP) corresponding to the letter grade awarded for that  $j^{th}$  subject. After registration and completion of first year first semester, the SGPA of that semester itself may be taken as the CGPA, as there are no cumulative effects.

**Illustration of calculation of SGPA**

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	A	9	$4 \times 9 = 36$
Course 2	4	O	10	$4 \times 10 = 40$

Course 3	4	C	7	$4 \times 7 = 28$
Course 4	3	B	8	$3 \times 8 = 24$
Course 5	3	A	10	$3 \times 10 = 30$
Course 6	3	C	7	$3 \times 7 = 21$
	Total Credits = 21			Total Credit Points = 179

$$SGPA = 179/21 = 8.52$$

#### Illustration of calculation of CGPA

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
<b>I Year I Semester</b>				
Course 1	4	A	9	$4 \times 9 = 36$
Course 2	4	A	9	$4 \times 9 = 36$
Course 3	4	B	8	$4 \times 8 = 32$
Course 4	3	O	10	$3 \times 10 = 30$
Course 5	3	B	8	$3 \times 8 = 24$
Course 6	3	D	6	$3 \times 6 = 18$
<b>I Year II Semester</b>				
Course 7	4	B	8	$4 \times 8 = 32$
Course 8	4	O	10	$4 \times 10 = 40$
Course 9	4	A	9	$4 \times 9 = 36$
Course 10	3	D	6	$3 \times 6 = 18$
Course 11	3	C	7	$3 \times 7 = 21$
Course 12	3	A	9	$3 \times 9 = 27$
	Total Credits = 42			Total Credit Points = 350

$$CGPA = 350/42 = 8.33$$

- 9.10** For merit ranking or comparison purposes or any other listing, **only the 'rounded off' values of the CGPAs will be used.**
- 9.11** For calculations listed in regulations 9.6 to 9.9, performance in failed subjects/ courses (securing 'F' grade) will also be taken into account, and the credits of such subjects/ courses will also be included in the multiplications and summations. After passing the failed subject(s) newly secured letter grades will be taken into account for calculation of SGPA and CGPA. However, mandatory courses will not be taken into consideration.
- 10.0 Passing standards**
- 10.1** A student shall be declared successful or 'passed' in a semester, if student secures a GP  $\geq 6$  ('D' grade or above) in every subject/course in that semester (i.e. when student gets an SGPA  $\geq 6.00$  at the end of that particular semester); and a student shall be declared successful or 'passed' in the entire under graduate programme, only when gets a CGPA  $\geq 6.00$  for the award of the degree as required.
- 10.2** After the completion of each semester, a grade card or grade sheet (or transcript) shall be issued to all the registered students of that semester, indicating the letter grades and credits earned. It will

show the details of the courses registered (course code, title, no. of credits, and grade earned etc.), credits earned, SGPA, and CGPA.

#### 11.0 Declaration of results

- 11.1 Computation of SGPA and CGPA are done using the procedure listed in 9.6 to 9.9.
- 11.2 For final percentage of marks equivalent to the computed final CGPA, the following formula may be used.

$$\% \text{ of Marks} = (\text{final CGPA} - 0.5) \times 10$$

#### 12.0 Award of degree

- 12.1 A student who registers for all the specified subjects/ courses as listed in the course structure and secures the required number of 209 credits (with CGPA  $\geq 6.0$ ), within 8 academic years from the date of commencement of the first academic year, shall be declared to have '**qualified**' for the award of the B.Pharm. degree.
- 12.2 A student who qualifies for the award of the degree as listed in item 12.1 shall be placed in the following classes.
- 12.3 Students with final CGPA (at the end of the under graduate programme)  $\geq 7.50$ , and fulfilling the following conditions -
- (i) Should have passed all the subjects/courses in '**first appearance**' within the first 4 academic years (or 8 sequential semesters) from the date of commencement of first year first semester.
  - (ii) Should not have been detained or prevented from writing the end semester examinations in any semester due to shortage of attendance or any other reason, shall be placed in '**first class with distinction**'.
- 12.4 Students with final CGPA (at the end of the under graduate programme)  $\geq 6.00$  but  $< 7.50$ , shall be placed in '**first class**'.
- 12.5 Students with final CGPA (at the end of the under graduate programme)  $\geq 5.00$  but  $< 6.00$ , shall be placed in '**second class**'.
- 12.6 A student with final CGPA (at the end of the under graduate programme)  $< 5.00$  will not be eligible for the award of the degree.
- 12.7 Students fulfilling the conditions listed under item 12.3 alone will be eligible for award of '**university rank**' and '**gold medal**'.

#### 13.0 Withholding of results

- 13.1 If the student has not paid the fees to the university/ college at any stage, or has dues pending due to any reason whatsoever, or if any case of indiscipline is pending, the result of the student may be withheld, and student will not be allowed to go into the next higher semester. The award or issue of the degree may also be withheld in such cases.

#### 14.0 Transitory regulations

- A. For students detained due to shortage of attendance:
1. A Student who has been detained in I year of R15/R16/R17 Regulations due to lack of attendance, shall be permitted to join I year I Semester of R22 Regulations and he is required to complete the

study of B. Pharmacy programme within the stipulated period of eight academic years from the date of first admission in I Year.

2. A student who has been detained in any semester of II, III and IV years of R15/R16/R17 regulations for want of attendance, shall be permitted to join the corresponding semester of R22 regulations and is required to complete the study of B. Pharmacy within the stipulated period of eight academic years from the date of first admission in I Year. The R22 Academic Regulations under which a student has been readmitted shall be applicable to that student from that semester.

See rule (C) for further Transitory Regulations.

**B. For students detained due to shortage of credits:**

3. A student of R15/R16/R17 Regulations who has been detained due to lack of credits, shall be promoted to the next semester of R22 Regulations only after acquiring the required credits as per the corresponding regulations of his/her first admission. The student is required to complete the study of B. Pharmacy within the stipulated period of eight academic years from the year of first admission. The R22 Academic Regulations are applicable to a student from the year of readmission onwards.

See rule (C) for further Transitory Regulations.

**C. For readmitted students in R22 Regulations:**

4. A student who has failed in any subject under any regulation has to pass those subjects in the same regulations.
5. The maximum credits that a student acquires for the award of degree, shall be the sum of the total number of credits secured in all the regulations of his/her study including R22 Regulations.
6. If a student readmitted to R22 Regulations, has any subject with 80% of syllabus common with his/her previous regulations, that particular subject in R22 Regulations will be substituted by another subject to be suggested by the University.

**Note:** If a student readmitted to R22 Regulations, has not studied any subjects/topics in his/her earlier regulations of study which is prerequisite for further subjects in R22 Regulations, the College Principals concerned shall conduct remedial classes to cover those subjects/ topics for the benefit of the students.

**15.0 Student transfers**

**15.1** There shall be no transfers from one college to another within the constituent colleges and units of Jawaharlal Nehru Technological University Hyderabad.

**15.3** The students seeking transfer to colleges affiliated to JNTUH from various other Universities/institutions have to pass the failed subjects which are equivalent to the subjects of JNTUH, and also pass the subjects of JNTUH which the students have not studied at the earlier institution. Further, though the students have passed some of the subjects at the earlier institutions, if the same subjects are prescribed in different semesters of JNTUH, the students have to study those subjects in JNTUH in spite of the fact that those subjects are repeated.

**15.4** The transferred students from other Universities/institutions to JNTUH affiliated colleges who are on rolls to be provide one chance to write the CBT (internal marks) in the **failed subjects and/or subjects not studied** as per the clearance letter issued by the university.

**15.5** The autonomous affiliated colleges have to provide one chance to write the internal examinations in the **failed subjects and/or subjects not studied**, to the students transferred from other universities/institutions to JNTUH autonomous affiliated colleges who are on rolls, as per the clearance (equivalence) letter issued by the University.

**16.0 Scope**

- 16.1** The academic regulations should be read as a whole, for the purpose of any interpretation.
- 16.2** In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- 16.3** The university may change or amend the academic regulations, course structure or syllabi at any time, and the changes or amendments made shall be applicable to all students with effect from the date notified by the university authorities.



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
(Established by Act No. 30 of 2008)  
Kukatpally, Hyderabad, Telangana (India).

**Academic Regulations for B.Pharm. (Lateral Entry Scheme) w.e.f the AY 2023-24**

1. **Eligibility for award of B. Pharm. Degree (LES)**

The LES students after securing admission shall pursue a course of study for not less than three academic years and not more than six academic years.

2. The student shall register for 153 credits and secure 153 credits with CGPA  $\geq 6.00$  from II year to IV year B.Pharm. programme (LES) for the award of B.Pharm. degree.

3. The students, who fail to fulfil the requirement for the award of the degree in six academic years from the year of admission, shall forfeit their seat in B.Pharm.

4. The attendance requirements of B. Pharm. (Regular) shall be applicable to B.Pharm. (LES).

5. **Promotion rule**

S. No	Promotion	Conditions to be fulfilled
1	Second year to third year	Regular course of study of second year.
2	Third Year to fourth year	(i) Regular course of study of third year. (ii) Must have passed all the subjects/ courses up to II Year II Semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.

6. All the other regulations as applicable to B. Pharm. 4-year degree course (Regular) will hold good for B. Pharm. (Lateral Entry Scheme).

**MALPRACTICES RULES**

**DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS**

Nature of Malpractice/Improper conduct		Punishment
If the student:		
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which student is appearing but has not made use of (material shall include any marks on the body of the student which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.

(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any student or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the students involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year.  The hall ticket of the student is to be cancelled and sent to the university.
3.	Impersonates any other student in connection with the examination.	The student who has impersonated shall be expelled from examination hall. The student is also debarred and forfeits the seat. The performance of the original student who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and UG major project) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4.	Smuggles in the answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
6.	Refuses to obey the orders of the chief superintendent/assistant – superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the student(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The students also are debarred and forfeit their seats. In case of outsiders, they will be

	by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred and forfeits the seat.
9.	If student of the college, who is not a student for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred and forfeits the seat.  Person(s) who do not belong to the college will be handed over to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the student has appeared including practical examinations and UG major project of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall	

	be reported to the university for further action to award suitable punishment.	
--	--	--

**Malpractices identified by squad or special invigilators**

1. Punishments to the students as per the above guidelines.
2. Punishment for institutions : (if the squad reports that the college is also involved in encouraging malpractices)
  - a. A show cause notice shall be issued to the college.
  - b. Impose a suitable fine on the college.
  - c. Shifting the examination centre from the college to another college for a specific period of not less than one year.

\*\*\*\*\*



# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

## **ACADEMIC REGULATIONS OF B.PHARM. (REGULAR/FULL TIME) STUDENTS**

### **WITH EFFECT FROM THE ACADEMIC YEAR 2017-18 (R-17)**

#### **1.0 Under-Graduate Degree Programme in Pharmacy**

- 1.1 JNTUH offers a 4-year (8 semesters) **Bachelor of Pharmacy (B.Pharm.)** degree programme, under Choice Based Credit System (CBCS) at its affiliated colleges with effect from the academic year 2017-18.

#### **2.0 Eligibility for admission**

- 2.1 Admission to the under graduate programme shall be made either on the basis of the merit rank obtained by the qualified candidate in entrance test conducted by the Telangana State Government (EAMCET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.

- 2.2 The medium of instructions for the entire under graduate programme in Pharmacy will be **English** only.

#### **3.0 B.Pharm. Programme structure**

- 3.1 A student after securing admission shall pursue the under graduate programme in B.Pharm. in a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years (16 semesters) starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Pharm course.

A student shall register for all subjects for covering 196 credits and each student shall secure 196 credits (with CGPA  $\geq 5$ ) required for the completion of the under graduate programme and award of the B.Pharm. degree.

- 3.2 **UGC/ AICTE** specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

##### **3.2.1 Semester scheme**

Each under graduate programme is of 4 academic years (8 semesters) with the academic year being divided into two semesters of 22 weeks ( $\geq 90$  instructional days) each, each semester shall have - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester

System (CBSS) as indicated by UGC and curriculum / course structure as suggested by AICTE are followed.

### 3.2.2 Credit courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (lecture periods: tutorial periods: practical periods: credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses.
- One credit for two hours/ week/ semester for laboratory/ practical (P) courses or tutorials (T).

Courses like environmental science, human values and professional ethics, gender sensitization lab and other student activities like NCC/NSO and NSS are identified as mandatory courses. These courses will not carry any credits.

### 3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in Pharmacy (B.Pharm. degree programmes) are broadly classified as follows. The university has followed almost all the guidelines issued by AICTE/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1	Foundation Courses (FnC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects.
2		PS - Pharmaceutical Sciences	Includes fundamental Pharmacy Subjects.
3		HS – Humanities and Social sciences	Includes subjects related to humanities, social sciences and management.
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline.
5	Elective Courses (ElC)	OE – Open Electives	Includes elective subjects related to inter-disciplinary areas of Pharmacy or other than Pharmacy
6	Core Courses	Project Work	B.Pharm. project or UG project or UG major project
7		Seminar	Seminar/ Colloquium based on core contents related to parent discipline.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)

#### 4.0 Course registration

- 4.1 A 'faculty advisor or counselor' shall be assigned to a group of 15 students, who will advise student about the under graduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The academic section of the college invites 'registration forms' from students before the beginning of the semester through 'on-line registration', ensuring 'date and time stamping'. The on-line registration requests for any 'current semester' shall be **completed before the commencement of semester end examinations of the 'preceding semester'**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the '**written approval**' from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor/ counselor and the student.
- 4.4 If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** registration for the subject(s) / course(s) under a given/ specified course group/ category as listed in the course structure, only the first mentioned subject/ course in that category will be taken into consideration.
- 4.5 Subject/ course options exercised through **on-line** registration are final and **cannot** be changed or inter-changed; further, alternate choices also will not be considered. However, if the subject/ course that has already been listed for registration by the Head of the Department in a semester could not be offered due to any unforeseen or unexpected reasons, then the student shall be allowed to have alternate choice either for a new subject (subject to offering of such a subject), or for another existing subject (subject to availability of seats). Such alternate arrangements will be made by the Head of the Department, with due notification and time-framed schedule, within the **first week** after the commencement of class-work for that semester.
- 4.6 **Open Electives:** Students have to choose one open elective (OE-I) in II year II semester, one (OE-II) in III year I semester, and one (OE-III) in III year II semester and one (OE-IV) in IV year II semester from the list of Open Electives.

#### 5.0 Subjects/ courses to be offered

- 5.1 A typical section (or class) strength for each semester shall be 60.
- 5.2 A subject/ course may be offered to the students, **only if** a minimum of 20 students (1/3 of the section strength) opt for it. The maximum strength of a section is limited to 80 (60 + 1/3 of the section strength).
- 5.3 If more entries for registration of a subject come into picture, then the Head of Department concerned shall decide, whether or not to offer such a subject/ course for **two (or multiple) sections**.

## 6.0 Attendance requirements:

- 6.1 Attendance in all classes (Lectures/Laboratories/Project Work) is compulsory. The minimum required attendance in aggregate of all the subjects/ courses including the attendance of mid-term examination / Laboratory etc. is 75%. Two periods of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject. A student shall not be permitted to appear for the Semester End Examinations (SEE), if his attendance is less than 75% (excluding attendance in mandatory courses environmental science, human values and professional ethics, gender sensitization Lab, NCC/NSO, NSS and Industrial Training) for that semester.
- 6.2 Condoning of shortage of attendance (between 65% and 75%) up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and Medical grounds) in each semester shall be granted by the College Academic Committee on genuine and valid grounds, based on the student's representation with supporting evidence.
- 6.3 A stipulated fee shall be payable towards condoning of shortage of attendance.
- 6.4 Shortage of attendance below 65% in aggregate shall in **no case be condoned**.
- 6.5 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examinations of that semester. They get detained and their registration for that semester shall stand cancelled. They will not be promoted to the next semester. They may seek re-registration for all those subjects registered in that semester in which student was detained, by seeking re-admission into that semester as and when offered; in case if there are any open electives, the same may also be re-registered if offered. However, if those electives are not offered in later semesters, then alternate electives may be chosen from the **same** set of elective subjects offered under that category.
- 6.6 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same class.

## 7.0 Academic requirements

The following academic requirements have to be satisfied, in addition to the attendance requirements mentioned in item no.6.

- 7.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course, if student secures not less than 35% marks (26 out of 75 marks) in the semester end examination, and a minimum of 40% of marks in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of letter grades, this implies securing 'C' grade or above in that subject/ course.

## 7.2 Promotion Rules

S. No.	Promotion	Conditions to be fulfilled
1	First year first semester to first year second semester	Regular course of study of first year first semester.

2	First year second semester to second year first semester	(i) Regular course of study of first year second semester. (ii) Must have secured at least 24 credits out of 48 credits i.e., 50% of credits up to first year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3.	Second year first semester to second year second semester	Regular course of study of second year first semester.
4	Second year second semester to third year first semester	(i) Regular course of study of second year second semester. (ii) Must have secured at least 58 credits out of 96 credits i.e., 60% of credits up to second year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Third year first semester to third year second semester	Regular course of study of third year first semester.
6.	Third year second semester to fourth year first semester	(i) Regular course of study of third year second semester. (ii) Must have secured at least 86 credits out of 144 credits i.e., 60% of credits up to third year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
7	Fourth year first semester to fourth year second semester	Regular course of study of fourth year first semester.

7.3 A student shall register for all subjects covering 196 credits as specified and listed in the course structure, fulfills all the attendance and academic requirements for 196 credits, 'earn all 196 credits' by securing SGPA  $\geq 5.0$  (in each semester) and CGPA (at the end of each successive semester)  $\geq 5.0$  to successfully complete the under graduate programme.

7.4 After securing the necessary 196 credits as specified for the successful completion of the entire under graduate programme, the student can avail exemption of two subjects up to 6 credits, that is, two open elective subjects for optional drop out from these 196 credits earned; resulting in 190 credits for under graduate programme performance evaluation, i.e., the performance of the student in these 190 credits shall alone be taken into account for the calculation of 'the final CGPA (at the end of under graduate programme, which takes the SGPA of the IV year II semester into account), and shall be indicated in the

grade card of IV year II semester. However, the performance of student in the earlier individual semesters, with the corresponding SGPA and CGPA for which grade cards have already been given will not be altered.

- 7.5 If a student registers for some more 'extra subjects' other than those listed subjects totaling to 196 credits as specified in the course structure, the performances in those 'extra subjects' (although evaluated and graded using the same procedure as that of the required 196 credits) will not be taken into account while calculating the SGPA and CGPA. For such 'extra subjects' registered, % of marks and letter grade alone will be indicated in the grade card as a performance measure, subject to completion of the attendance and academic requirements as stated in regulations 6 and 7.1 – 7.4 above.
- 7.6 A student eligible to appear in the end semester examination for any subject/ course, but absent from it or failed (thereby failing to secure 'C' grade or above) may reappear for that subject/ course in the supplementary examination as and when conducted. In such cases, CIE assessed earlier for that subject/ course will be carried over, and added to the marks to be obtained in the SEE supplementary examination for evaluating performance in that subject.
- 7.7 A student **detained in a semester due to shortage of attendance, may be re-admitted when the same semester is offered in the next academic year for fulfillment of academic requirements.** The academic regulations under which student has been readmitted shall be applicable. However, no grade allotments or SGPA/ CGPA calculations will be done for the entire semester in which student has been detained.
- 7.8 A student detained **due to lack of credits, shall be promoted to the next academic year only after acquiring the required academic credits.** The academic regulations under which student has been readmitted shall be applicable to him.

**Note: (1) The SGPA will be computed and printed on the marks memo only if the candidate passes in all the subjects offered and gets minimum B grade in all the subjects.**

**(2) CGPA is calculated only when the candidate passes in all the subjects offered in all the semesters.**

## **8.0 Evaluation - Distribution and Weightage of marks**

- 8.1 The performance of a student in every subject/course (including practicals and UG major project) will be evaluated for 100 marks each, with 25 marks allotted for CIE (Continuous Internal Evaluation) and 75 marks for SEE (Semester End-Examination).
- 8.2 For theory subjects, during a semester, there shall be two mid-term examinations. Each mid-term examination consists of one objective paper, one descriptive paper and one assignment. The objective paper and the essay paper shall be for 10 marks each with a total duration of 1 hour 20 minutes (20 minutes for objective and 60 minutes for essay paper). The objective paper is set with 20 bits of multiple choice, fill-in the blanks and matching type of questions for a total of 10 marks. The essay paper shall contain 4 full

questions out of which, the student has to answer 2 questions, each carrying 5 marks. While the first mid-term examination shall be conducted on 50% of the syllabus, the second mid-term examination shall be conducted on the remaining 50% of the syllabus. Five marks are allocated for assignments (as specified by the subject teacher concerned). The first assignment should be submitted before the conduct of the first mid-examination, and the second assignment should be submitted before the conduct of the second mid-examination. The total marks secured by the student in each mid-term examination are evaluated for 25 marks, and the average of the two mid-term examinations shall be taken as the final marks secured by each student in internals/sessionals. If any student is absent from any subject of a mid-term examination, an on-line test will be conducted for him by the university. The details of the question paper pattern are as follows,

- The end semester examinations will be conducted for 75 marks consisting of two parts viz. i) **Part- A** for 25 marks, ii) **Part - B** for 50 marks.
- Part-A is compulsory question which consists of ten sub-questions. The first five sub-questions are from each unit and carry 2 marks each. The next five sub-questions are one from each unit and carry 3 marks each.
- Part-B consists of five questions (numbered from 2 to 6) carrying 10 marks each. Each of these questions is from one unit and may contain sub-questions. For each question there will be an “either” “or” choice, which means that there will be two questions from each unit and the student should answer either of the two questions.

**8.3** For practical subjects there shall be a continuous internal evaluation during the semester for 25 sessional marks and 75 semester end examination marks. Out of the 25 marks for internal evaluation, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination shall be evaluated for 10 marks conducted by the laboratory teacher concerned. The semester end examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the clusters of colleges which are decided by the examination branch of the university.

**8.4** There shall be an Industrial Training in IV year I semester. For the Industrial Training, the student shall be required to work for at least 150 hours spread over four weeks in a Pharmaceutical Industry/Hospital. It includes Production unit, Quality Control department, Quality Assurance department, Analytical laboratory, Chemical manufacturing unit, Pharmaceutical R&D, Hospital (Clinical Pharmacy), Clinical Research Organization, Community Pharmacy, etc. After the IV year I semester and before the commencement of IV year II semester, the student shall submit satisfactory report of the work and certificate duly signed by the authority of training organization to the head of the institute.

**8.5 Practice School:** In the IV year I semester, every candidate shall undergo a practice school for a period of 150 hours evenly distributed throughout the semester. The student

shall opt any one of the domains for practice school declared by the departmental committee from time to time. At the end of the practice school, every student shall submit a printed report (in triplicate) on the practice school he/she attended (not more than 25 pages). The report shall be submitted to the departmental committee consisting of Head of the Institution, Head of the Department and a senior faculty member. The practice school report shall be evaluated for 100 marks and grade point shall be awarded.

- 8.6 Out of a total of 100 marks for the UG major project, 25 marks shall be allotted for internal evaluation and 75 marks for the end semester examination (viva voce). The end semester examination of the project work shall be conducted by a committee consisting of external examiner, Head of the Department, supervisor of the project and a senior faculty member. The evaluation of UG major project shall be made at the end of IV year II semester. The internal evaluation shall be on the basis of two seminars given by each student on the topic of UG major project.
- 8.7 The laboratory marks and the sessional marks awarded by the college are subject to scrutiny and scaling by the university wherever necessary. In such cases, the sessional and laboratory marks awarded by the college will be referred to a committee. The committee will arrive at a scaling factor and the marks will be scaled accordingly. The recommendations of the committee are final and binding. The laboratory records and internal test papers shall be preserved in the respective institutions as per the university rules and produced before the committees of the university as and when asked for.
- 8.8 For mandatory courses environmental science, human values and professional ethics, gender sensitization lab and Industrial Training a student has to secure 40 marks out of 100 marks (i.e. 40% of the marks allotted) in the continuous internal evaluation for passing the subject/course.
- 8.9 For mandatory courses NCC/ NSO and NSS, a 'satisfactory participation certificate' shall be issued to the student from the authorities concerned, only after securing  $\geq 65\%$  attendance in such a course.
- 8.10 No marks or letter grade shall be allotted for all mandatory/non-credit courses.
- 9.0 Grading procedure**
- 9.1 Marks will be awarded to indicate the performance of student in each theory subject, laboratory / practicals and UG major project. Based on the percentage of marks obtained (Continuous Internal Evaluation plus Semester End Examination, both taken together) as specified in item 8 above, a corresponding letter grade shall be given.
- 9.2 As a measure of the performance of student, a 10-point absolute grading system using the following letter grades (as per UGC/AICTE guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Subject/Course (Class Intervals)	Letter Grade (UGC Guidelines)	Grade Points
Greater than or equal to 90%	O (Outstanding)	10

80 and less than 90%	A <sup>+</sup> (Excellent)	9
70 and less than 80%	A (Very Good)	8
60 and less than 70%	B <sup>+</sup> (Good)	7
50 and less than 60%	B (Average)	6
40 and less than 50%	C (Pass)	5
Below 40%	F (FAIL)	0
Absent	Ab	0

- 9.3 A student obtaining 'F' grade in any subject shall be deemed to have 'failed' and is required to reappear as a 'supplementary student' in the semester end examination, as and when offered. In such cases, internal marks in those subjects will remain the same as those obtained earlier.
- 9.4 A student who has not appeared for examination in any subject, 'Ab' grade will be allocated in that subject, and student shall be considered 'failed'. Student will be required to reappear as a 'supplementary student' in the semester end examination, as and when offered.
- 9.5 A letter grade does not indicate any specific percentage of marks secured by the student, but it indicates only the range of percentage of marks.
- 9.6 A student earns grade point (GP) in each subject/ course, on the basis of the letter grade secured in that subject/ course. The corresponding 'credit points' (CP) are computed by multiplying the grade point with credits for that particular subject/ course.

**Credit points (CP) = grade point (GP) x credits .... For a course**

- 9.7 The student passes the subject/ course only when  $GP \geq 5$  ('C' grade or above)
- 9.8 The semester grade point average (SGPA) is calculated by dividing the sum of credit points ( $\Sigma CP$ ) secured from all subjects/ courses registered in a semester, by the total number of credits registered during that semester. SGPA is rounded off to **two** decimal places. SGPA is thus computed as

$$SGPA = \{ \sum_{i=1}^N C_i G_i \} / \{ \sum_{i=1}^N C_i \} \dots \text{For each semester,}$$

where 'i' is the subject indicator index (takes into account all subjects in a semester), 'N' is the no. of subjects 'registered' for the semester (as specifically required and listed under the course structure of the parent department),  $C_i$  is the no. of credits allotted to the  $i^{th}$  subject, and  $G_i$  represents the grade points (GP) corresponding to the letter grade awarded for that  $i^{th}$  subject.

- 9.9 The cumulative grade point average (CGPA) is a measure of the overall cumulative performance of a student in all semesters considered for registration. The CGPA is the ratio of the total credit points secured by a student in **all** registered courses in **all** semesters, and the total number of credits registered in **all** the semesters. CGPA is rounded off to **two** decimal places. CGPA is thus computed from the I year II semester onwards at the end of each semester as per the formula

$$CGPA = \{ \sum_{j=1}^M C_j G_j \} / \{ \sum_{j=1}^M C_j \} \dots \text{for all S semesters registered}$$

(i.e., up to and inclusive of S semesters,  $S \geq 2$ ),

where 'M' is the total no. of subjects the student has 'registered' i.e., from the 1<sup>st</sup> semester onwards up to and inclusive of the 8<sup>th</sup> semester, 'j' is the subject indicator index (takes into account all subjects from 1 to 8 semesters),  $C_j$  is the no. of credits allotted to the j<sup>th</sup> subject, and  $G_j$  represents the grade points (GP) corresponding to the letter grade awarded for that j<sup>th</sup> subject. After registration and completion of first year first semester, the SGPA of that semester itself may be taken as the CGPA, as there are no cumulative effects.

#### Illustration of calculation of SGPA

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	O	10	$4 \times 10 = 40$
Course 3	4	C	5	$4 \times 5 = 20$
Course 4	3	B	6	$3 \times 6 = 18$
Course 5	3	A+	9	$3 \times 9 = 27$
Course 6	3	C	5	$3 \times 5 = 15$
	Total Credits = 21			Total Credit Points = 152

$$\text{SGPA} = 152/21 = 7.24$$

#### Illustration of calculation of CGPA

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
<b>I Year I Semester</b>				
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	A+	9	$4 \times 9 = 36$
Course 3	4	B	6	$4 \times 6 = 24$
Course 4	3	O	10	$3 \times 10 = 30$
Course 5	3	B+	7	$3 \times 7 = 21$
Course 6	3	A	8	$3 \times 8 = 24$
<b>I Year II Semester</b>				
Course 7	4	B+	7	$4 \times 7 = 28$
Course 8	4	O	10	$4 \times 10 = 40$
Course 9	4	A	8	$4 \times 8 = 32$
Course 10	3	B	6	$3 \times 6 = 18$
Course 11	3	C	5	$3 \times 5 = 15$
Course 12	3	A+	9	$3 \times 9 = 27$
	Total Credits = 42			Total Credit Points = 327

$$\text{CGPA} = 327/42 = 7.79$$

- 9.10 For merit ranking or comparison purposes or any other listing, **only** the '**rounded off**' values of the CGPAs will be used.
- 9.11 For calculations listed in regulations 9.6 to 9.9, performance in failed subjects/ courses (securing **F** grade) will also be taken into account, and the credits of such subjects/ courses will also be included in the multiplications and summations. After passing the failed subject(s) newly secured letter grades will be taken into account for calculation of SGPA and CGPA. However, mandatory courses will not be taken into consideration.

#### 10.0 Passing standards

- 10.1 A student shall be declared successful or 'passed' in a semester, if student secures a  $GP \geq 5$  ('C' grade or above) in every subject/course in that semester (i.e. when student gets an  $SGPA \geq 5.00$  at the end of that particular semester); and a student shall be declared successful or 'passed' in the entire under graduate programme, only when gets a  $CGPA \geq 5.00$  for the award of the degree as required.
- 10.2 After the completion of each semester, a grade card or grade sheet (or transcript) shall be issued to all the registered students of that semester, indicating the letter grades and credits earned. It will show the details of the courses registered (course code, title, no. of credits, and grade earned etc.), credits earned, SGPA, and CGPA.

#### 11.0 Declaration of results

- 11.1 Computation of SGPA and CGPA are done using the procedure listed in 9.6 to 9.9.
- 11.2 For final percentage of marks equivalent to the computed final CGPA, the following formula may be used.

$$\% \text{ of Marks} = (\text{final CGPA} - 0.5) \times 10$$

#### 12.0 Award of degree

- 12.1 A student who registers for all the specified subjects/ courses as listed in the course structure and secures the required number of 196 credits (with  $CGPA \geq 5.0$ ), within 8 academic years from the date of commencement of the first academic year, shall be declared to have '**qualified**' for the award of the B.Pharm. degree.
- 12.2 A student who qualifies for the award of the degree as listed in item 12.1 shall be placed in the following classes.
- 12.3 Students with final CGPA (at the end of the under graduate programme)  $\geq 8.00$ , and fulfilling the following conditions -
- Should have passed all the subjects/courses in '**first appearance**' within the first 4 academic years (or 8 sequential semesters) from the date of commencement of first year first semester.
  - Should have secured a  $CGPA \geq 8.00$ , at the end of each of the 8 sequential semesters, starting from first year first semester onwards.

- (iii) Should not have been detained or prevented from writing the end semester examinations in any semester due to shortage of attendance or any other reason, shall be placed in '**first class with distinction**'.
- 12.4 Students with final CGPA (at the end of the under graduate programme)  $\geq 6.50$  but  $< 8.00$ , shall be placed in '**first class**'.
- 12.5 Students with final CGPA (at the end of the under graduate programme)  $\geq 5.50$  but  $< 6.50$ , shall be placed in '**second class**'.
- 12.6 All other students who qualify for the award of the degree (as per item 12.1), with final CGPA (at the end of the under graduate programme)  $\geq 5.00$  but  $< 5.50$ , shall be placed in '**pass class**'.
- 12.7 A student with final CGPA (at the end of the under graduate programme)  $< 5.00$  will not be eligible for the award of the degree.
- 12.8 Students fulfilling the conditions listed under item 12.3 alone will be eligible for award of '**university rank**' and '**gold medal**'.
- 13.0 **Withholding of results**
- 13.1 If the student has not paid the fees to the university/ college at any stage, or has dues pending due to any reason whatsoever, or if any case of indiscipline is pending, the result of the student may be withheld, and student will not be allowed to go into the next higher semester. The award or issue of the degree may also be withheld in such cases.
- 14.0 **Transitory regulations**
- A. **For students detained due to shortage of attendance:**
1. A Student who has been detained in I year of R09/R13/R15/R16 Regulations due to lack of attendance, shall be permitted to join I year I Semester of R17 Regulations and he is required to complete the study of B. Pharmacy programme within the stipulated period of eight academic years from the date of first admission in I Year.
  2. A student who has been detained in any semester of II, III and IV years of R09/R13/R15/R16 regulations for want of attendance, shall be permitted to join the corresponding semester of R17 regulations and is required to complete the study of B. Pharmacy within the stipulated period of eight academic years from the date of first admission in I Year. The R17 Academic Regulations under which a student has been readmitted shall be applicable to that student from that semester.
- See rule (C) for further Transitory Regulations.
- B. **For students detained due to shortage of credits:**
3. A student of R09/R13/R15/R16 Regulations who has been detained due to lack of credits, shall be promoted to the next semester of R17 Regulations only after acquiring the required credits as per the corresponding regulations of his/her first admission. The student is required to complete the study of B. Pharmacy within the stipulated period of

eight academic years from the year of first admission. The R17 Academic Regulations are applicable to a student from the year of readmission onwards.

See rule (C) for further Transitory Regulations.

**C. For readmitted students in R17 Regulations:**

4. A student who has failed in any subject under any regulation has to pass those subjects in the same regulations.
5. The maximum credits that a student acquires for the award of degree, shall be the sum of the total number of credits secured in all the regulations of his/her study including R17 Regulations. The performance evaluation of the student will be done after the exemption of two subjects if total credits acquired are  $\leq 206$ , three subjects if total credits acquired are  $> 206$  (see R17 Regulations for exemption details).
6. If a student readmitted to R17 Regulations, has any subject with 80% of syllabus common with his/her previous regulations, that particular subject in R17 Regulations will be substituted by another subject to be suggested by the University.

**Note:** If a student readmitted to R17 Regulations, has not studied any subjects/topics in his/her earlier regulations of study which is prerequisite for further subjects in R17 Regulations, the College Principals concerned shall conduct remedial classes to cover those subjects/topics for the benefit of the students.

**15.0 Student transfers**

- 15.1 There shall be no branch transfers after the completion of admission process.
- 15.2 There shall be no transfers from one college/stream to another within the constituent colleges and units of Jawaharlal Nehru Technological University Hyderabad.
- 15.3 The students seeking transfer to colleges affiliated to JNTUH from various other Universities/institutions have to pass the failed subjects which are equivalent to the subjects of JNTUH, and also pass the subjects of JNTUH which the students have not studied at the earlier institution. Further, though the students have passed some of the subjects at the earlier institutions, if the same subjects are prescribed in different semesters of JNTUH, the students have to study those subjects in JNTUH in spite of the fact that those subjects are repeated.
- 15.4 The transferred students from other Universities/institutions to JNTUH affiliated colleges who are on rolls to be provide one chance to write the CBT (internal marks) in the **failed subjects and/or subjects not studied** as per the clearance letter issued by the university.
- 15.5 The autonomous affiliated colleges have to provide one chance to write the internal examinations in the **failed subjects and/or subjects not studied**, to the students transferred from other universities/institutions to JNTUH autonomous affiliated colleges who are on rolls, as per the clearance (equivalence) letter issued by the University.

## 16.0 Scope

- 16.1 The academic regulations should be read as a whole, for the purpose of any interpretation.
- 16.2 In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- 16.3 The university may change or amend the academic regulations, course structure or syllabi at any time, and the changes or amendments made shall be applicable to all students with effect from the date notified by the university authorities.



## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD (Established by Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

### **Academic Regulations for B.Pharm. (Lateral Entry Scheme) w.e.f the AY 2018-19**

#### 1. **Eligibility for award of B. Pharm. Degree (LES)**

The LES students after securing admission shall pursue a course of study for not less than three academic years and not more than six academic years.

2. The student shall register for 147 credits and secure 147 credits with CGPA  $\geq 5$  from II year to IV year B.Pharm. programme (LES) for the award of B.Pharm. degree. **Out of the 147 credits secured, the student can avail exemption up to 6 credits**, that is, two open elective subjects resulting in 141 credits for B.Pharm programme performance evaluation.
3. The students, who fail to fulfil the requirement for the award of the degree in six academic years from the year of admission, shall forfeit their seat in B.Pharm.
4. The attendance requirements of B. Pharm. (Regular) shall be applicable to B.Pharm. (LES).

#### 5. **Promotion rule**

S. No	Promotion	Conditions to be fulfilled
1	Second year first semester to second year second semester	Regular course of study of second year first semester.
2	Second year second semester to third year first semester	(i) Regular course of study of second year second semester. (ii) Must have secured at least 29 credits out of 48 credits i.e., 60% of credits up

		to second year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3	Third year first semester to third year second semester	Regular course of study of third year first semester.
4	Third year second semester to fourth year first semester	(i) Regular course of study of third year second semester.  (ii) Must have secured at least 58 credits out of 96 credits i.e., 60% of credits up to third year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Fourth year first semester to fourth year second semester	Regular course of study of fourth year first semester.

6. All the other regulations as applicable to B. Pharm. 4-year degree course (Regular) will hold good for B. Pharm. (Lateral Entry Scheme).

#### MALPRACTICES RULES

##### DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractice/Improper conduct	Punishment
	If the student:	
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which student is appearing but has not made use of (material shall include any marks on the body of the student which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or	Expulsion from the examination hall and cancellation of the performance in that subject only of all the students involved. In case of an

	communicates through cell phones with any student or persons in or outside the exam hall in respect of any matter.	outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year.  The hall ticket of the student is to be cancelled and sent to the university.
3.	Impersonates any other student in connection with the examination.	The student who has impersonated shall be expelled from examination hall. The student is also debarred and forfeits the seat. The performance of the original student who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and UG major project) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4.	Smuggles in the answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.

6.	Refuses to obey the orders of the chief superintendent/assistant superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the student(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The students also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred and forfeits the seat.
9.	If student of the college, who is not a student for the particular examination or	Student of the colleges expulsion from the examination hall and cancellation of the

	any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred and forfeits the seat.  Person(s) who do not belong to the college will be handed over to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the student has appeared including practical examinations and UG major project of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the university for further action to award suitable punishment.	

#### **Malpractices identified by squad or special invigilators**

1. Punishments to the students as per the above guidelines.
2. Punishment for institutions : (if the squad reports that the college is also involved in encouraging malpractices)
  - a. A show cause notice shall be issued to the college.
  - b. Impose a suitable fine on the college.
  - c. Shifting the examination centre from the college to another college for a specific period of not less than one year.

\* \* \* \* \*



# भारत का राजपत्र The Gazette of India

साप्ताहिक/WEEKLY

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

19] नई दिल्ली, शनिवार, मई 10—मई 16, 2008 (वैशाख 20, 1930)  
19] NEW DELHI, SATURDAY, MAY 10—MAY 16, 2008 (VAISAKHA 20, 1930)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।  
(Separate paging is given to this Part in order that it may be filed as a separate compilation)

भाग III—खण्ड 4

[PART III—SECTION 4]

[सांविधिक निकायों द्वारा जारी की गई विविध अधिसूचनाएं जिसमें कि आदेश, विज्ञापन और सूचनाएं सम्मिलित हैं]  
[Miscellaneous Notifications including Notifications, Orders, Advertisements and Notices issued by  
Statutory Bodies]

भारतीय रिज़र्व बैंक

मुंबई-400001, दिनांक 9 अप्रैल 2008

संदर्भ : बैंपविवि. सं. आईबीडी.-14241/23.13.048/2007-08--भारतीय रिज़र्व बैंक अधिनियम, 1934 (1934 का 2) की धारा 42 की उप-धारा (6) के खण्ड (ग) के अनुसरण में भारतीय रिज़र्व बैंक इसके द्वारा निदेश देता है कि उक्त अधिनियम की दूसरी अनुसूची में निम्नलिखित परिवर्तन किये जाएं :--

“अरब बांग्लादेश बैंक लिमिटेड” शब्दों के स्थान पर “एबी बैंक लिमिटेड” शब्द होंगे।

आनन्द नि  
कार्यपालक नि

[PUBLISHED IN THE GAZETTE OF INDIA, No.19, PART III, SECTION 4]

Ministry of Health and Family Welfare  
(Pharmacy Council of India)

New Delhi, 10<sup>th</sup> May, 2008.

### **Pharm.D. Regulations 2008**

Regulations framed under section 10 of the Pharmacy Act, 1948 (8 of 1948).

(As approved by the Government of India, Ministry of Health vide, letter No.V.13013/1/2007-PMS, dated the 13<sup>th</sup> March, 2008 and notified by the Pharmacy Council of India).

No.14-126/2007-PCI.— In exercise of the powers conferred by section 10 of the Pharmacy Act, 1948 (8 of 1948), the Pharmacy Council of India, with the approval of the Central Government, hereby makes the following regulations, namely:-

#### **CHAPTER-I**

1. Short title and commencement. – (1) These regulations may be called the Pharm.D. Regulations 2008.  
(2) They shall come into force from the date of their publication in the official Gazette.
2. Pharm.D. shall consist of a certificate, having passed the course of study and examination as prescribed in these regulations, for the purpose of registration as a pharmacist to practice the profession under the Pharmacy Act, 1948.

## CHAPTER-II

### 3. Duration of the course. –

- a) Pharm.D: The duration of the course shall be six academic years (five years of study and one year of internship or residency) full time with each academic year spread over a period of not less than two hundred working days. The period of six years duration is divided into two phases –

Phase I – consisting of First, Second, Third, Fourth and Fifth academic year.

Phase II – consisting of internship or residency training during sixth year involving posting in speciality units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services and acquires skill under supervision so that he or she may become capable of functioning independently.

- b) Pharm.D. (Post Baccalaureate): The duration of the course shall be for three academic years (two years of study and one year internship or residency) full time with each academic year spread over a period of not less than two hundred working days. The period of three years duration is divided into two phases –

Phase I – consisting of First and Second academic year.

Phase II – consisting of Internship or residency training during third year involving posting in speciality units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services, and acquires skill under supervision so that he or she may become capable of functioning independently.

### 4. Minimum qualification for admission to. –

- a) Pharm.D. Part-I Course – A pass in any of the following examinations -

(1) 10+2 examination with Physics and Chemistry as compulsory subjects along with one of the following subjects:

Mathematics or Biology.

(2) A pass in D.Pharm course from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act.

(3) Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

Provided that a student should complete the age of 17 years on or before 31<sup>st</sup> December of the year of admission to the course.

Provided that there shall be reservation of seats for the students belonging to the Scheduled Castes, Scheduled Tribes and other Backward Classes in accordance with the instructions issued by the Central Government/State Government/Union Territory Administration as the case may be from time to time.

## b) Pharm.D. (Post Baccalaureate) Course -

A pass in B.Pharm from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act:

Provided that there shall be reservation of seats for the students belonging to the Scheduled Castes, Scheduled Tribes and other Backward Classes in accordance with the instructions issued by the Central Government/State Government/Union Territory Administration as the case may be from time to time.

5. Number of admissions in the above said programmes shall be as prescribed by the Pharmacy Council of India from time to time and presently be restricted as below –
  - i) Pharm.D. Programme – 30 students.
  - ii) Pharm.D. (Post Baccalaureate) Programme – 10 students.
6. Institutions running B.Pharm programme approved under section 12 of the Pharmacy Act, will only be permitted to run Pharm.D. programme. Pharm.D. (Post Baccalaureate) programme will be permitted only in those institutions which are permitted to run Pharm.D. programme.
7. Course of study. – The course of study for Pharm.D. shall include the subjects as given in the Tables below. The number of hours in a week, devoted to each subject for its teaching in theory, practical and tutorial shall not be less than that noted against it in columns (3), (4) and (5) below.

### TABLES

#### First Year :

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
1.1	Human Anatomy and Physiology	3	3	1
1.2	Pharmaceutics	2	3	1
1.3	Medicinal Biochemistry	3	3	1
1.4	Pharmaceutical Organic Chemistry	3	3	1
1.5	Pharmaceutical Inorganic Chemistry	2	3	1
1.6	Remedial Mathematics/ Biology	3	3*	1
	<b>Total hours</b>	<b>16</b>	<b>18</b>	<b>6 = (40)</b>

\* For Biology

**Second Year:**

S.No	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
2.1	Pathophysiology	3	-	1
2.2	Pharmaceutical Microbiology	3	3	1
2.3	Pharmacognosy & Phytopharmaceuticals	3	3	1
2.4	Pharmacology-I	3	-	1
2.5	Community Pharmacy	2	-	1
2.6	Pharmacotherapeutics-I	3	3	1
	<b>Total Hours</b>	<b>17</b>	<b>9</b>	<b>6 = 32</b>

**Third Year:**

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
3.1	Pharmacology-II	3	3	1
3.2	Pharmaceutical Analysis	3	3	1
3.3	Pharmacotherapeutics-II	3	3	1
3.4	Pharmaceutical Jurisprudence	2	-	-
3.5	Medicinal Chemistry	3	3	1
3.6	Pharmaceutical Formulations	2	3	1
	<b>Total hours</b>	<b>16</b>	<b>15</b>	<b>5 = 36</b>

**Fourth Year:**

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical/ Hospital Posting	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
4.1	Pharmacotherapeutics-III	3	3	1
4.2	Hospital Pharmacy	2	3	1
4.3	Clinical Pharmacy	3	3	1
4.4	Biostatistics & Research Methodology	2	-	1
4.5	Biopharmaceutics & Pharmacokinetics	3	3	1
4.6	Clinical Toxicology	2	-	1
	<b>Total hours</b>	<b>15</b>	<b>12</b>	<b>6 = 33</b>

**Fifth Year:**

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Hospital posting*	No. of hours of Seminar
(1)	(2)	(3)	(4)	(5)
5.1	Clinical Research	3	-	1
5.2	Pharmacoepidemiology and Pharmacoeconomics	3	-	1
5.3	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	2	-	1
5.4	Clerkship *	-	-	1
5.5	Project work (Six Months)	-	20	-
	<b>Total hours</b>	<b>8</b>	<b>20</b>	<b>4 = 32</b>

\* Attending ward rounds on daily basis.

**Sixth Year:**

Internship or residency training including postings in speciality units. Student should independently provide the clinical pharmacy services to the allotted wards.

- (i) Six months in General Medicine department, and
- (ii) Two months each in three other speciality departments

8. Syllabus. – The syllabus for each subject of study in the said Tables shall be as specified in Appendix -A to these regulations.
9. Approval of the authority conducting the course of study. – (1) No person, institution, society or university shall start and conduct Pharm.D or Pharm.D. (Post Baccalaureate) programme without the prior approval of the Pharmacy Council of India.
  - (2) Any person or pharmacy college for the purpose of obtaining permission under sub-section (1) of section 12 of the Pharmacy Act, shall submit a scheme as prescribed by the Pharmacy Council of India.
  - (3) The scheme referred to in sub-regulation (2) above, shall be in such form and contain such particulars and be preferred in such manner and be accompanied with such fee as may be prescribed:
 

Provided that the Pharmacy Council of India shall not approve any institution under these regulations unless it provides adequate arrangements for teaching in regard to building, accommodation, labs., equipments, teaching staff, non-teaching staff, etc., as specified in Appendix-B to these regulations.
10. Examination. – (1) Every year there shall be an examination to examine the students.
  - (2) Each examination may be held twice every year. The first examination in a year shall be the annual examination and the second examination shall be supplementary examination.
  - (3) The examinations shall be of written and practical (including oral nature) carrying maximum marks for each part of a subject as indicated in Tables below :

**TABLES****First Year examination :**

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
1.1	Human Anatomy and Physiology	70	30	100	70	30	100
1.2	Pharmaceutics	70	30	100	70	30	100
1.3	Medicinal Biochemistry	70	30	100	70	30	100
1.4	Pharmaceutical Organic Chemistry	70	30	100	70	30	100
1.5	Pharmaceutical Inorganic Chemistry	70	30	100	70	30	100
1.6	Remedial Mathematics/Biology	70	30	100	70*	30*	100*
				600			600 = 1200

\* for Biology.

**Second Year examination :**

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
2.1	Pathophysiology	70	30	100	-	-	-
2.2	Pharmaceutical Microbiology	70	30	100	70	30	100
2.3	Pharmacognosy & Phytopharmaceuticals	70	30	100	70	30	100
2.4	Pharmacology-I	70	30	100	-	-	-
2.5	Community Pharmacy	70	30	100	-	-	-
2.6	Pharmacotherapeutics-I	70	30	100	70	30	100
				600			300 = 900

**Third Year examination :**

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
3.1	Pharmacology-II	70	30	100	70	30	100
3.2	Pharmaceutical Analysis	70	30	100	70	30	100
3.3	Pharmacotherapeutics-II	70	30	100	70	30	100
3.4	Pharmaceutical Jurisprudence	70	30	100	-	-	-
3.5	Medicinal Chemistry	70	30	100	70	30	100
3.6	Pharmaceutical Formulations	70	30	100	70	30	100
				600			500 = 1100

**Fourth Year examination :**

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
4.1	Pharmacotherapeutics-III	70	30	100	70	30	100
4.2	Hospital Pharmacy	70	30	100	70	30	100
4.3	Clinical Pharmacy	70	30	100	70	30	100
4.4	Biostatistics & Research Methodology	70	30	100	-	-	-
4.5	Biopharmaceutics & Pharmacokinetics	70	30	100	70	30	100
4.6	Clinical Toxicology	70	30	100	-	-	-
				600			400 = 1000

**Fifth Year examination :**

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
5.1	Clinical Research	70	30	100	-	-	-
5.2	Pharmacoepidemiology and Pharmacoeconomics	70	30	100	-	-	-
5.3	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	70	30	100	-	-	-
5.4	Clerkship *	-	-	-	70	30	100
5.5	Project work (Six Months)	-	-	-	100**	-	100
				300			200 = 500

\* Attending ward rounds on daily basis.

\*\* 30 marks – viva-voce (oral)

70 marks – Thesis work

11. Eligibility for appearing Examination.— Only such students who produce certificate from the Head of the Institution in which he or she has undergone the Pharm.D. or as the case may be, the Pharm.D. (Post Baccalaureate) course, in proof of his or her having regularly and satisfactorily undergone the course of study by attending not less than 80% of the classes held both in theory and in practical separately in each subject shall be eligible for appearing at examination.

12. Mode of examinations.— (1) Theory examination shall be of three hours and practical examination shall be of four hours duration.

(2) A Student who fails in theory or practical examination of a subject shall re-appear both in theory and practical of the same subject.

(3) Practical examination shall also consist of a viva –voce (Oral) examination.

(4) Clerkship examination – Oral examination shall be conducted after the completion of clerkship of students. An external and an internal examiner will evaluate the student. Students may be asked to present the allotted medical cases followed by discussion. Students' capabilities in delivering clinical pharmacy services, pharmaceutical care planning and knowledge of therapeutics shall be assessed.

13. Award of sessional marks and maintenance of records.— (1) A regular record of both theory and practical class work and examinations conducted in an institution imparting training for Pharm.D. or as the case may be, Pharm.D. (Post Baccalaureate) course, shall be maintained for each student in the institution and 30 marks for each theory and 30 marks for each practical subject shall be allotted as sessional.

(2) There shall be at least two periodic sessional examinations during each academic year and the highest aggregate of any two performances shall form the basis of calculating sessional marks.

(3) The sessional marks in practicals shall be allotted on the following basis:-

- (i) Actual performance in the sessional examination (20 marks);
- (ii) Day to day assessment in the practical class work, promptness, viva-voce record maintenance, etc. (10 marks).

14. Minimum marks for passing examination.— A student shall not be declared to have passed examination unless he or she secures at least 50% marks in each of the subjects separately in the theory examinations, including sessional marks and at least 50% marks in each of the practical examinations including sessional marks. The students securing 60% marks or above in aggregate in all subjects in a single attempt at the Pharm.D. or as the case may be, Pharm. D. (Post Baccalaureate) course examination shall be declared to have passed in first class. Students securing 75% marks or above in any subject or subjects shall be declared to have passed with distinction in the subject or those subjects provided he or she passes in all the subjects in a single attempt.
15. Eligibility for promotion to next year.— All students who have appeared for all the subjects and passed the first year annual examination are eligible for promotion to the second year and, so on. However, failure in more than two subjects shall debar him or her from promotion to the next year classes.
16. Internship.— (1) Internship is a phase of training wherein a student is expected to conduct actual practice of pharmacy and health care and acquires skills under the supervision so that he or she may become capable of functioning independently.
- (2) Every student has to undergo one year internship as per Appendix-C to these regulations.
17. Approval of examinations.— Examinations mentioned in regulations 10 to 12 and 14 shall be held by the examining authority hereinafter referred to as the university, which shall be approved by the Pharmacy Council of India under sub-section (2) of section 12 of the Pharmacy Act, 1948. Such approval shall be granted only if the examining authority concerned fulfills the conditions as specified in Appendix-D to these regulations.
18. Certificate of passing examination.— Every student who has passed the examinations for the Pharm.D. (Doctor of Pharmacy) or Pharm.D. (Post Baccalaureate) (Doctor of Pharmacy) as the case may be, shall be granted a certificate by the examining authority.

### CHAPTER-III

#### Practical training

19. Hospital posting.— Every student shall be posted in constituent hospital for a period of not less than fifty hours to be covered in not less than 200 working days in each of second, third & fourth year course. Each student shall submit report duly certified by the preceptor and duly attested by the Head of the Department or Institution as prescribed. In the fifth year, every student shall spend half a day in the morning hours attending ward rounds on daily basis as a part of clerkship. Theory teaching may be scheduled in the afternoon.
20. Project work.— (1) To allow the student to develop data collection and reporting skills in the area of community, hospital and clinical pharmacy, a project work shall be carried out under the supervision of a teacher. The project topic must be approved by the Head of the Department or Head of the Institution. The same shall be announced to students within one month of commencement of the fifth year classes. Project work shall be presented in a written report and as a seminar at the end of the year. External and the internal examiners shall do the assessment of the project work.  
(2) Project work shall comprise of objectives of the work, methodology, results, discussions and conclusions.
21. Objectives of project work.— The main objectives of the project work is to—
  - (i) show the evidence of having made accurate description of published work of others and of having recorded the findings in an impartial manner; and
  - (ii) develop the students in data collection, analysis and reporting and interpretation skills.
22. Methodology.— To complete the project work following methodology shall be adopted, namely:—
  - (i) students shall work in groups of not less than *two* and not more than *four* under an authorised teacher;
  - (ii) project topic shall be approved by the Head of the Department or Head of the Institution;
  - (iii) project work chosen shall be related to the pharmacy practice in community, hospital and clinical setup. It shall be patient and treatment (Medicine) oriented, like drug utilisation reviews, pharmacoepidemiology, pharmacovigilance or pharmacoeconomics;
  - (iv) project work shall be approved by the institutional ethics committee;
  - (v) student shall present at least three seminars, one in the beginning, one at middle and one at the end of the project work; and
  - (vi) two-page write-up of the project indicating title, objectives, methodology anticipated benefits and references shall be submitted to the Head of the Department or Head of the Institution.

23. Reporting .— (1) Student working on the project shall submit jointly to the Head of the Department or Head of the Institution a project report of about 40-50 pages. Project report should include a certificate issued by the authorised teacher, Head of the Department as well as by the Head of the Institution

(2) Project report shall be computer typed in double space using Times Roman font on A4 paper. The title shall be in bold with font size 18, sub-titles in bold with font size 14 and the text with font size 12. The cover page of the project report shall contain details about the name of the student and the name of the authorised teacher with font size 14.

(3) Submission of the project report shall be done at least one month prior to the commencement of annual or supplementary examination.

24. Evaluation.— The following methodology shall be adopted for evaluating the project work—

(i) Project work shall be evaluated by internal and external examiners.

(ii) Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of four students).

(iii) Three seminars presented by students shall be evaluated for twenty marks each and the average of best two shall be forwarded to the university with marks of other subjects.

(iv) Evaluation shall be done on the following items:

	<b>Marks</b>
a) Write up of the seminar	(7.5)
b) Presentation of work	(7.5)
c) Communication skills	(7.5)
d) Question and answer skills	(7.5)
<b>Total</b>	(30 marks)

(v) Final evaluation of project work shall be done on the following items: **Marks**

a) Write up of the seminar	(17.5)
b) Presentation of work	(17.5)
c) Communication skills	(17.5)
d) Question and answer skills	(17.5)
<b>Total</b>	(70 marks)

*Explanation.*— For the purposes of differentiation in the evaluation in case of topic being the same for the group of students, the same shall be done based on item numbers b, c and d mentioned above.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by Act No.30 of 2008)

Kukatpally, Hyderabad-500085, Telangana State (India)

**Academic Regulations of M.Pharm. (Regular/Full Time) Programmes, 2022-23 (R22)**  
**(CBCS)**

(Effective for the students admitted into 1 year from the Academic Year 2022-23 and onwards)

- 1.0 **Post-Graduate Degree Programmes in Pharmacy (PGP in Pharmacy)** Jawaharlal Nehru Technological University Hyderabad (JNTUH) offers **Two** Years (**Four** Semesters) full-time Master of Pharmacy (M.Pharm.) Degree programmes, under Choice Based Credit System (CBCS) at its constituent (non-autonomous) and affiliated colleges in different specializations.
- 2.0 **Eligibility for Admissions**
  - 2.1 Admission to the PGPs shall be made subject to eligibility, qualification and specializations prescribed by the University from time to time, for each specialization under each M.Pharm. programme.
  - 2.2 Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GPAT Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana State Government (PGE CET) for M.Pharm. programmes / an entrance test conducted by JNTUH/ on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.
  - 2.3 The medium of instructions for all PG Programmes will be **ENGLISH** only.
- 3.0 **M.Pharm. Programme (PGP in Pharmacy) Structure**
  - 3.1 The M.Pharm. Programmes in Pharmacy of JNTUH are of Semester pattern, with **Four** Semesters consisting of **Two** academic years, each academic year having **Two** Semesters (First/Odd and Second/Even Semesters). Each Semester shall be of 23 weeks duration (inclusive of Examinations), with a minimum of **100** instructional days per Semester.
  - 3.2 The student shall not take more than **four** academic years to fulfill all the academic requirements for the award of M.Pharm. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M.Pharm. programme.
  - 3.3 **UGC/PCI** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:
    - 3.3.1 **Semester Scheme**

Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Design Subject', or 'Mini Project with Seminar', or 'Dissertation', as the case may be.
    - 3.3.2 **Credit Courses**

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods:



Credits) structure based on the following general pattern:

- One credit for one hour/week/semester for theory/lecture (L) courses
- One credit for two hours/ week/semester for laboratory/ practical (P) courses or tutorials (T)

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations and mandatory courses (**Audit Courses**) will not carry any credits.

### 3.3.3 Subject Course Classification

All subjects/courses offered for the Post-Graduate Programme in Pharmacy (M.Pharm. Degree Programme) are broadly classified as follows. The University has followed in general the guidelines issued by UGC/PCI.

S.No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses (CoC)	PC- Professional Core	Includes subjects related to the Specialization in Pharmacy
		Dissertation	M.Pharm. Project or PG Project or Major Project
		Mini Project/ Seminar	Mini Project/Seminar based on core contents related to the Specialization in Pharmacy
2	Elective Courses (EiE)	PE - Professional Electives	Includes elective subjects related to the Specialization in Pharmacy
		OE - Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the Specialization in Pharmacy
3	<b>Mandatory Courses</b>	--	<b>Non-Credit Audit Courses</b>

### 4.0 Course Registration

- 4.1 A 'Faculty Advisor or Counselor' shall be assigned to each specialization, who will advise on the Post Graduate Programme (PGP), its Course Structure and Curriculum, Choice/Option for Subjects/ Courses, based on his competence, progress, pre-requisites and interest.
- 4.2 The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of SEEs (Semester End Examinations) of the 'PRECEDING SEMESTER'.
- 4.3 A Student can apply for ON-LINE Registration, ONLY AFTER obtaining the 'WRITTEN APPROVAL' from his Faculty Advisor, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, Faculty Advisor and the Student).
- 4.4 If the Student submits ambiguous choices or multiple options or erroneous entries during ON-LINE Registration for the Subject(s) / Course(s) under a given/ specified Course Group/ Category as listed in the Course Structure, only the first mentioned Subject/ Course in that Category will be taken into consideration.



- 4.5 Subject/ Course Options exercised through ON-LINE Registration are final and CANNOT be changed, nor can they be inter-changed; further, alternate choices also will not be considered. However, if the Subject/ Course that has already been listed for Registration by the University in a Semester could not be offered due to unforeseen or unexpected reasons, then the Student will be allowed to have alternate choice either for a new Subject, if it is offered, or for another existing Subject (subject to availability of seats). Such alternate arrangements will be made by the Head of Department, with due notification and time-framed schedule, within the FIRST WEEK from the commencement of Class-work for that Semester.

## 5.0 Attendance Requirements

The programmes are offered based on a unit system with each subject being considered a unit. Attendance is calculated separately for each subject.

- 5.1 Attendance in all classes (Lectures/Laboratories) is compulsory. The minimum required attendance in each theory subject (**also mandatory audit courses**) including the attendance of mid-term examination / Laboratory etc. is **80%**. Two periods of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject. ***This attendance should also be included in the fortnightly upload of attendance to the University. The attendance of mandatory audit courses should be uploaded separately to the University.*** A student shall not be permitted to appear for the Semester End Examinations (SEE), if his attendance is less than **80%**.
- 5.2 A student's Seminar report and presentation on Mini Project shall be eligible for evaluation, only if he ensures a minimum of **80%** of his attendance in Seminar presentation classes on Mini Project during that Semester.
- 5.3 **Condoning of shortage of attendance** (between 70% and 80%) up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and Medical grounds) in each subject (Theory/Lab/Mini Project with Seminar) of a semester shall be granted by the College Academic Committee on genuine reasons.
- 5.4 A prescribed fee per subject shall be payable for condoning shortage of attendance after getting the approval of College Academic Committee for the same. The College Academic Committee shall maintain relevant documents along with the request from the student.
- 5.5 Shortage of Attendance below 70% in any subject shall in **no case be condoned**.
- 5.6 A Student, whose shortage of attendance is not condoned in any Subject(s) (Theory/Lab/Mini Project with Seminar) in any Semester, is considered as 'Detained in that Subject(s)', and is not eligible to write Semester End Examination(s) of such Subject(s), (in case of Mini Project with Seminar, his/her Mini Project with Seminar Report or Presentation are not eligible for evaluation) in that Semester; and he/she has to seek re-registration for those Subject(s) in subsequent Semesters, and attend the same as and when offered.
- 5.7 A student fulfills the attendance requirement in the present semester, shall not be eligible for readmission into the same class.
- 5.8 a) A student shall put in a minimum required attendance in at least **three theory subjects (excluding mandatory(audit) course)** in first Year I semester for promotion to first Year II Semester.
- b) A student shall put in a minimum required attendance in at least **three theory subjects (excluding mandatory(audit) course)** in first Year II semester for promotion to second Year I Semester.



## 6.0 Academic Requirements

The following academic requirements must be satisfied, in addition to the attendance requirements mentioned in item no. 5. The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks per subject / course (theory / practical), based on Internal Evaluation and Semester End Examination.

6.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course, if he secures not less than **40%** of marks (**30** out of **75** marks) in the Semester End Examination, and a minimum of **50%** of marks in the sum total of CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of Letter Grades and this implies securing 'D' Grade or above in a subject.

6.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to **Mini Project**, if student secures not less than **50%** marks (i.e. 50 out of 100 allotted marks). The student would be treated as failed, if student (i) does not submit a report on Mini Project or does not make a presentation of the same before the evaluation committee as per schedule or (ii) secures less than 50% marks in Mini Project evaluation. The failed student may reappear once for the above evaluation, as and when they are scheduled again; if the student fails in such 'one reappearance' evaluation also, the student has to reappear for the same in the next subsequent semester, as and when it is scheduled.

6.3 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to **seminar & assignment**, if student secures not less than 50% marks i.e. 50 out of 100 allotted marks. **50** marks are allotted for **Seminar**, **50** marks are allotted for **Assignment**, **Total 50+50 = 100 marks**. The student would be treated as failed, if student (i) does not submit a report on seminar/does not submit the assignments as prescribed or does not make a seminar presentation before the evaluation committee as per schedule or (ii) secures less than 50% (i.e. < **25** marks out of **50**) marks in each of the seminar & assignment evaluations. The student failed in seminar evaluation may reappear once for it, as and when it is scheduled again; The student failed in assignment evaluation may submit the assignments once again for the evaluation, as and when the assignment submission is scheduled again. If the student fails in such 'one reappearance' evaluation also, the student has to reappear for the same in the next subsequent semester, as and when it is scheduled.

6.4 A student shall register for all subjects for total of **98** credits as specified and listed in the course structure for the chosen specialization, put in required the attendance and fulfill the academic requirements for securing **98** credits obtaining a minimum of 'D' Grade or above in each subject, and all **98** credits securing Semester Grade Point Average (**SGPA**)  $\geq 6.0$  (in each semester) and final Cumulative Grade Point Average (**CGPA**) (i.e., CGPA at the end of PGP)  $\geq 6.0$ , and shall **pass all the mandatory audit courses** to complete the PGP successfully.

Note: (1) The SGPA will be computed and printed on the marks memo only if the candidate passes in all the subjects offered and gets minimum 'D' grade in all the subjects.

(2) CGPA is calculated only when the candidate passes in all the subjects offered in all the semesters

6.5 Marks and Letter Grades obtained in all those subjects covering the above specified **98** credits alone shall be considered for the calculation of final CGPA, which will be indicated in the Grade Card /Marks Memo of second year second semester.

6.6 If a student registers for extra subject(s) (in the parent specialization or other specializations of



Pharmacy) other than those listed subjects totaling to **98** credits as specified in the course structure, the performance in extra subject(s) (although evaluated and graded using the same procedure as that of the required **98** credits) will not be considered while calculating the SGPA and CGPA. For such extra subject(s) registered, percentage of marks and Letter Grade alone will be indicated in the Grade Card/Marks Memo, as a performance measure, subject to completion of the attendance and academic requirements as stated in items 5 and 6.1 - 6.4.

- 6.7** When a student is detained due to shortage of attendance in any subject(s) in any semester, no Grade allotment will be made for such subject(s). However, he is eligible for re-registration of such subject(s) in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he is re-registered, by paying the prescribed fees per subject. In all these re-registration cases, the student shall have to secure a fresh set of internal marks and Semester End Examination marks for performance evaluation in such subject(s), and SGPA/CGPA calculations.
- 6.8** A student eligible to appear for the Semester End Examination in any subject, but absent from it or failed (failing to secure 'D' Grade or above), may reappear for that subject at the supplementary examination as and when conducted. In such cases, his Internal Marks assessed earlier for that subject will be carried over, and added to the marks secured in the supplementary examination, for the purpose of evaluating his performance in that subject.

- 6.9** A Student who fails to earn **98** credits as per the specified course structure, and as indicated above, within **four** academic years from the date of commencement of his first year first semester, shall forfeit his seat in M.Pharm. programme and his admission **shall stand cancelled**.

#### **7.0 Evaluation - Distribution and Weightage of Marks**

The performance of a student in each semester shall be evaluated subject- wise (irrespective of credits assigned) for a maximum of 100 marks. The performance of a student in every theory subject/course will be evaluated for 100 marks, with 25 marks allotted for CIE (Continuous Internal Evaluation) and 75 marks for SEE (Semester End-Examination).

- 7.1** For theory subjects, 75 marks shall be awarded for the performance in the Semester End Examination and 25 marks shall be awarded for Continuous Internal Evaluation (CIE). The Continuous Internal Evaluation shall be made based on the average of the marks secured in the two Mid-Term Examinations conducted, first Mid-Term examinations in the middle of the Semester and second Mid-Term examinations during the last week of instruction. Each Mid-Term Examination shall be conducted for a total duration of 120 minutes with Part 'A' as compulsory consisting of 5 questions carrying 2 marks each (10 marks), and Part 'B' with 3 questions to be answered out of 5 questions, each question carrying 5 marks (15 marks). The details of the Question Paper pattern for Semester End Examination (Theory) are given below:
- The Semester End Examination will be conducted for 75 marks. It consists of two parts.
    - i) Part A for 25 marks, ii) Part B for 50 marks.
  - Part A is compulsory and consists of 5 questions, one from each unit and carrying 5 marks each.
  - Part B consists of 5 questions carrying 10 marks each. There will be two questions from each unit and only one should be answered.
- 7.2** For practical subjects there shall be a Continuous Internal Evaluation (CIE) during the semester for 25 marks and 75 marks for semester end examination. Out of the 25 marks for internal evaluation:
1. A write-up on day-to-day experiment in the laboratory (in terms of aim, components/procedure, expected outcome) which shall be evaluated for 5 marks



2. 10 marks for viva-voce in the course concerned.
3. Internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 10 marks.

The Semester End Examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the cluster/other colleges which will be decided by the examination branch of the University.

In the Semester End Examination held for 3 hours, total 75 marks are divided and allocated as shown below:

1. 10 marks for Synopsis
2. 50 marks for experiment
3. 15 marks for viva-voce on concerned laboratory course

A student has to secure 50 marks (i.e. 50% out of the 100 marks) allotted for CIE and SEE taken together.

**7.3** There shall be Mini Project during I year II semester for **internal evaluation** of 100 marks. The Departmental Academic Committee (DAC) will review the progress of the mini project during the presentations and evaluate the same for 50 marks. Mini Project Viva Voce will be evaluated by the DAC for another 50 marks before the semester end examinations. Student shall carryout the mini project in consultation with the mini project supervisor which may include critically reviewing the literature, project implementation and submit it to the department in the form of a report and shall make an oral presentation before the DAC consisting of Head of the Department, Mini Project supervisor and two other senior faculty members of the department. The student has to secure a minimum of 50% of marks in i) mini project presentation and ii) mini project viva voce, to be declared successful. If he fails to obtain the minimum marks, he has to reappear for the same as and when scheduled.

**7.4** There shall be **seminar & assignment** during I Year I Semester & I Year II Semester for **internal evaluation** of 100 marks. 50 marks are allotted for **Seminar**, 50 marks are allotted for **Assignment**, **Total 50+50 = 100 marks**.

For **Seminar**, the student in consultation with the seminar supervisor shall collect the information on a specialized topic, prepare a report, and submit it to the department. The Departmental Academic Committee (DAC) consisting of Head of the Department, seminar supervisor and two other senior faculty members of the department will evaluate the seminar report for 50 marks before the semester end examinations. The student has to secure a minimum of 25 marks (i.e. 50% out of the 50 marks) allotted to be declared successful. If he fails to obtain the minimum marks, he has to reappear for the same as and when scheduled.

For **Assignment**, the student is required to submit **one assignment from each theory subject/course** in I Year I Semester & I Year II Semester before the commencement of Semester End Examinations.

- In I Year I Semester there are 5 theory courses and 5 assignments are to be submitted in total, one assignment each to the concerned theory subject teacher. The concerned theory subject teacher will evaluate the assignment for 10 marks. So 5 assignments will be evaluated for 50 marks in total.
- In I Year II Semester there are 4 theory courses and 4 assignments are to be submitted in total, one assignment each to the concerned theory subject teacher. The concerned theory subject teacher will evaluate the assignment for 12.5 marks. So 4 assignments will be evaluated for 50 marks in total.



The student has to secure a minimum of 25 marks (i.e. 50% out of the 50 marks) allotted to be declared successful. If he fails to obtain the minimum marks, he may submit the assignments once again for the evaluation, as and when the assignment submission is scheduled again.

- 7.5 There shall be comprehensive viva-voce during II year I semester for **external evaluation** of 100 marks. It shall be evaluated by the committee consisting of an external examiner, Head of the Department, and two other senior faculty members of the department before the semester end examinations. The external examiner shall be appointed from the cluster/other colleges which will be decided by the examination branch of the University. The student has to secure a minimum of 50 marks (i.e. 50% out of the 100 marks) allotted to be declared successful. If he fails to obtain the minimum marks, he has to reappear for the same as and when scheduled.
- 7.6 Every candidate shall be required to submit a dissertation on a topic approved by the Dissertation Review Committee.
- 7.7 A Dissertation Review Committee (DRC) shall be constituted with the Head of the Department as Chairperson, Dissertation Supervisor and one senior faculty member of the Department offering the M.Pharm. programme.
- 7.8 Registration of Dissertation Work: A candidate is permitted to register for the Dissertation Work after satisfying the attendance requirement in all the subjects, both theory and laboratory.
- 7.9 After satisfying 7.8, a candidate must present in Dissertation Work Review - I, in consultation with his Dissertation Supervisor, the title, objective and plan of action of his Dissertation work to the Dissertation Review Committee (DRC) for approval within four weeks from the commencement of Second year First Semester. Only after obtaining the approval of the DRC can the student initiate the Dissertation work.
- 7.10 If a candidate wishes to change his supervisor or topic of the Dissertation, he can do so with the approval of the DRC. However, the DRC shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of Dissertation proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.
- 7.11 A candidate shall submit his Dissertation progress report in two stages at least with a gap of three months between them.
- 7.12 The work on the Dissertation shall be initiated at the beginning of the II year and the duration of the Dissertation is two semesters. A candidate is permitted to submit Dissertation Thesis only after successful completion of all theory and practical courses with the approval of DRC not earlier than 40 weeks from the date of approval of the Dissertation work. For the approval of DRC the candidate shall submit the draft copy of thesis to the Head of the Department and make an oral presentation before the DRC.
- 7.13 The Dissertation Work Review - II in II Year I Sem. carries internal marks of 100. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate the work for the other 50 marks. The Supervisor and DRC will examine the Problem Definition, Objectives, Scope of Work, Methodology Adopted, Literature Survey in the same domain and progress of the Dissertation Work. A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Work Review - II. If he fails to obtain the minimum required marks, he has to reappear for Dissertation Work Review - II as and when conducted.



- 7.14 The Dissertation Work Review - III in II Year II Sem. carries 100 internal marks. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate it for the other 50 marks. The DRC will examine the overall progress of the Dissertation Work and decide whether or not the Dissertation is eligible for final submission. The evaluation shall be done as per the criteria given below:

**Evaluation of Dissertation Book (Internal Evaluation):**

Objective(s) of the work done	- 10 Marks
Methodology adopted	- 30 Marks
Results and Discussions	- 50 Marks
Conclusions and Outcomes	- 10 Marks
<b>Total</b>	<b>- 100 Marks</b>

A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Work Review - III. If he fails to obtain the required minimum marks, he has to reappear for Dissertation Work Review - III as and when conducted.

- 7.15 For Dissertation Evaluation (Viva Voce) in II Year II Sem. there are external marks of 100 and it is evaluated by the external examiner. The evaluation shall be done as per the criteria given below:

**Evaluation of Presentation (External Evaluation):**

Presentation of work	- 40 Marks
Communication skills	- 20 Marks
Viva-Voce	- 40 Marks
<b>Total</b>	<b>- 100 Marks</b>

The candidate has to secure a minimum of 50% marks in Dissertation Evaluation (Viva-Voce) examination. If he fails to obtain the required minimum marks, he has to reappear for the same as and when conducted.

- 7.16 Dissertation Work Reviews - II and III shall be conducted in phase I (Regular) and Phase II (Supplementary). Phase II will be conducted only for unsuccessful students in Phase I. The unsuccessful students in Dissertation Work Review - II (Phase II) shall reappear for it at the time of Dissertation Work Review - III (Phase I). These students shall reappear for Dissertation Work Review - III in the next academic year at the time of Dissertation Work Review - II only after completion of Dissertation Work Review - II, and then Dissertation Work Review - III follows. The unsuccessful students in Dissertation Work Review - III (Phase II) shall reappear for Dissertation Work Review - III in the next academic year only at the time of Dissertation Work Review - II (Phase I).
- 7.17 After approval from the DRC, a soft copy of the thesis should be submitted for ANTI-PLAGIARISM check and the plagiarism report should be submitted to the University and be included in the final thesis. The Thesis will be accepted for submission, if the similarity index is less than **30%**. If the similarity index has more than the required percentage, the student is advised to modify accordingly and re-submit the soft copy of the thesis after one month. The maximum number of re-submissions of thesis after plagiarism check is limited to TWO. The candidate has to register for the Dissertation work and work for two semesters. After three attempts, the admission is liable to be cancelled. The college authorities are advised to make plagiarism check of every soft copy of theses before submissions.
- 7.18 Three copies of the Dissertation Thesis certified by the supervisor shall be submitted to the College/School/Institute, after submission of a research paper related to the Dissertation work in a UGC approved journal. A copy of the submitted research paper shall be attached to thesis.
- 7.19 The thesis shall be adjudicated by an external examiner selected by the University. For this, the



Principal of the College/School/Institute shall submit a panel of **three** examiners from among the list of experts in the relevant specialization as submitted by the supervisor concerned and Head of the Department.

- 7.20** If the report of the external examiner is unsatisfactory, the candidate shall revise and resubmit the Thesis. If the report of the examiner is unsatisfactory again, the thesis shall be summarily rejected. Subsequent actions for such dissertations may be considered, only on the specific recommendations of the external examiner and /or Dissertation Review Committee. No further correspondence in this matter will be entertained, if there is no specific recommendation for resubmission.
- 7.21** If the report of the examiner is satisfactory, the Head of the Department shall coordinate and make arrangements for the conduct of Dissertation Viva-Voce examination. The Dissertation Viva-Voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the external examiner who adjudicated the Thesis. The candidate has to secure a minimum of 50% of marks in Dissertation Evaluation (Viva-Voce) examination.
- 7.22** If he fails to fulfill the requirements as specified in 7.21, he will reappear for the Dissertation Viva-Voce examination only after three months. In the reappeared examination also, if he fails to fulfill the requirements, he will not be eligible for the award of the degree, unless he is asked to revise and resubmit his Dissertation Work by the board within a specified time period (within **four** years from the date of commencement of his first year first semester).
- 7.23** The Dissertation Viva-Voce External examination marks must be submitted to the University on the day of the examination.
- 7.24** For mandatory audit courses, a student has to secure 50 marks out of 100 marks (i.e. 50% of the marks allotted) in the continuous internal evaluation for passing the subject/course. These marks should also be uploaded along with the internal marks of other subjects.
- 7.25** No marks or letter grades shall be allotted for mandatory audit courses. Only Pass/Fail shall be indicated in Grade Card.

## **8.0 Re-Admission/Re-Registration**

### **8.1 Re-Admission for Discontinued Student**

A student, who has discontinued the M.Pharm. degree programme due to any reason whatsoever, may be considered for '**readmission**' into the same degree programme (with the same specialization) with the academic regulations of the batch into which he gets readmitted, with prior permission from the authorities concerned, subject to item 6.7.

- 8.2** If a student is detained in a subject (s) due to shortage of attendance in any semester, he may be permitted to **re-register** for the same subject(s) in the same category (core or elective group) or equivalent subject, if the same subject is not available, as suggested by the Board of Studies of that department, as and when offered in the subsequent semester(s), with the academic regulations of the batch into which he seeks re-registration, with prior permission from the authorities concerned, subject to item 3.2

- 8.3** *A candidate shall be given only one-time chance to re-register and attend the classes for a maximum of two subjects in a semester*, if the internal marks secured by a candidate are less than 40% and failed in those subjects but fulfilled the attendance requirement. A candidate must re-register for failed subjects within four weeks of commencement of the class work and secure the required



minimum attendance. In the event of the student taking this chance, his Continuous Internal Evaluation (internal) marks and Semester End Examination marks obtained in the previous attempt stand cancelled.

## 9.0 Examinations and Assessment - The Grading System

9.1 Grades will be awarded to indicate the performance of each student in each Theory Subject, or Lab/Practicals, or Mini Project with Seminar, Dissertation, etc., based on the percentage of marks obtained in CIE + SEE (Continuous Internal Evaluation + Semester End Examination, both taken together) as specified in Item 7 above, and a corresponding Letter Grade shall be given.

9.2 As a measure of the student's performance, a 10-point Absolute Grading System using the following Letter Grades (PCI Guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Subject/Course (Class Intervals)	Letter Grade (PCI Guidelines)	Grade Points
Greater than or equal to 90%	O (Outstanding)	10
80 and less than 90%	A (Excellent)	9
70 and less than 80%	B (Good)	8
60 and less than 70%	C (Fair)	7
50 and less than 60%	D (Average)	6
Below 50%	F (FAIL)	0
Absent	Ab	0

9.3 A student obtaining 'F' Grade in any Subject is deemed to have 'failed' and is required to reappear as 'Supplementary Candidate' for the Semester End Examination (SEE), as and when conducted. In such cases, his Internal Marks (CIE Marks) in those subjects will remain as obtained earlier.

9.4 If a student has not appeared for the examinations, 'Ab' Grade will be allocated to him for any subject and shall be considered 'failed' and will be required to reappear as 'Supplementary Candidate' for the Semester End Examination (SEE), as and when conducted.

9.5 A Letter Grade does not imply any specific marks percentage; it is only the range of percentage of marks.

9.6 In general, a student shall not be permitted to repeat any Subject/ Course (s) only for the sake of 'Grade Improvement' or 'SGPA/ CGPA Improvement'.

9.7 A student earns Grade Point (GP) in each Subject/ Course, on the basis of the Letter Grade obtained by him in that Subject/ Course. The corresponding 'Credit Points' (CP) are computed by multiplying the Grade Point with Credits for that particular Subject/ Course.

$$\text{Credit Points (CP)} = \text{Grade Point (GP)} \times \text{Credits} \dots \text{For a Course}$$

9.8 The student passes the Subject/ Course only when he gets  $GP \geq 6$  (D Grade or above).

9.9 The Semester Grade Point Average (SGPA) is calculated by dividing the Sum of Credit Points ( $\Sigma CP$ ) secured from ALL Subjects/ Courses registered in a Semester, by the Total Number of Credits registered during that Semester. SGPA is rounded off to TWO Decimal Places. SGPA is thus computed as

$$SGPA = \left\{ \sum_{i=1}^N C_i G_i \right\} / \left\{ \sum_{i=1}^N C_i \right\} \dots \text{For each Semester,}$$



where 'i' is the Subject indicator index (taking into account all Subjects in a Semester), 'N' is the no. of Subjects 'REGISTERED' for the Semester (as specifically required and listed under the Course Structure of the parent Department),  $C_i$  is the no. of Credits allotted to the  $i^{\text{th}}$  Subject, and  $G_i$  represents the Grade Points (GP) corresponding to the Letter Grade awarded for that  $i^{\text{th}}$  Subject.

- 9.10** The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over all Semesters considered for registration. The CGPA is the ratio of the Total Credit Points secured by a student in ALL registered Courses in ALL Semesters, and the Total Number of Credits registered in ALL the Semesters. CGPA is rounded off to TWO Decimal Places. CGPA is thus computed from the I Year Second Semester onwards, at the end of each Semester, as per the formula

$$\text{CGPA} = \left\{ \sum_{i=1}^M C_i G_i \right\} / \left\{ \sum_{i=1}^M C_i \right\} \dots \text{for all S Semesters registered}$$

(ie., upto and inclusive of S Semesters,  $S \geq 2$ ),

where 'M' is the TOTAL no. of Subjects (as specifically required and listed under the Course Structure of the parent Department) the Student has 'REGISTERED' for from the 1<sup>st</sup> Semester onwards upto and inclusive of the Semester S ( obviously  $M > N$  ), 'j' is the Subject indicator index (taking into account all Subjects from 1 to S Semesters),  $C_j$  is the no. of Credits allotted to the  $j^{\text{th}}$  Subject, and  $G_j$  represents the Grade Points (GP) corresponding to the Letter Grade awarded for that  $j^{\text{th}}$  Subject. After registration and completion of I Year I Semester however, the SGPA of that Semester itself may be taken as the CGPA, as there are no cumulative effects.

#### Illustration of calculation of SGPA

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	A	9	$4 \times 9 = 36$
Course 2	4	O	10	$4 \times 10 = 40$
Course 3	4	C	7	$4 \times 7 = 28$
Course 4	3	B	8	$3 \times 8 = 24$
Course 5	3	A	10	$3 \times 10 = 30$
Course 6	3	C	7	$3 \times 7 = 21$
	Total Credits = 21			Total Credit Points = 179

$$\text{SGPA} = 179/21 = 8.52$$

#### Illustration of calculation of CGPA

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
I Year I Semester				
Course 1	4	A	9	$4 \times 9 = 36$
Course 2	4	A	9	$4 \times 9 = 36$
Course 3	4	B	8	$4 \times 8 = 32$
Course 4	3	O	10	$3 \times 10 = 30$
Course 5	3	B	8	$3 \times 8 = 24$



Course 6	3	D	6	$3 \times 6 = 18$
<b>I Year II Semester</b>				
Course 7	4	B	8	$4 \times 8 = 32$
Course 8	4	O	10	$4 \times 10 = 40$
Course 9	4	A	9	$4 \times 9 = 36$
Course 10	3	D	6	$3 \times 6 = 18$
Course 11	3	C	7	$3 \times 7 = 21$
Course 12	3	A	9	$3 \times 9 = 27$
	Total Credits = 42			Total Credit Points = 350

$$\text{CGPA} = 350/42 = 8.33$$

### 10.0 Award of Degree and Class

- 10.1 If a student who registers for all the specified Subjects/ Courses as listed in the Course Structure, satisfies all the Course Requirements, and passes the examinations prescribed in the entire PG Programme (PGP), and secures the required number of **98 Credits** (with  $\text{CGPA} \geq 6.0$ ), shall be declared to have 'QUALIFIED' for the award of the M.Pharm. Degree in the chosen specialization of Pharmacy that he was admitted into.

### 10.2 Award of Class

After a student has earned the requirements prescribed for the completion of the programme and is eligible for the award of M.Pharm. Degree, he shall be placed in one of the following three classes based on the CGPA:

Class Awarded	CGPA
First Class with Distinction	$\geq 7.50$
First Class	$6.00 \leq \text{CGPA} < 7.49$
Second Class	$5.00 \leq \text{CGPA} < 5.99$

A student with final CGPA (at the end of the PGP)  $< 6.00$  shall not be eligible for the Award of Degree.

### 11.0 Withholding of Results

If the student has not paid the dues, if any, to the University or if any case of indiscipline is pending against him, the result and degree of the student will be withheld and he will not be allowed into the next semester.

### 12.0 General

- 12.1 **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
- 12.2 **Credit Point:** It is the product of grade point and number of credits for a course.
- 12.3 Wherever the words "he", "him", "his", occur in the regulations, they shall include "she", "her".



- 12.4** The academic regulation should be read as a whole for the purpose of any interpretation.
- 12.5** In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the University is final.
- 12.6** The University may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the University.



## MALPRACTICES RULES

## DISCIPLINARY ACTION FOR IMPROPER CONDUCT IN EXAMINATIONS

S.No	Nature of Malpractices/Improper conduct	Punishment
	If the candidate:	
1.(a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject to the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination).	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. Incase of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject to the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.
3.	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate, who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the	Expulsion from the examination hall and cancellation of performance in that subject and



	question paper during the examination or answer book or additional sheet, during or after the examination.	all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
6.	Refuses to obey the orders of the Chief Superintendent/Assistant – Superintendent/ any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in- charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	Incase of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already



		appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.
9.	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action to award suitable punishment.	

**Malpractices identified by squad or special invigilators**

1. Punishments to the candidates as per the above guidelines.
2. Punishment for institutions: (if the squad reports that the college is also involved in encouraging malpractices)
  - (i) A show cause notice shall be issued to the college.
  - (ii) Impose a suitable fine on the college.
  - (iii) Shifting the examination centre from the college to another college for a specific period of not less than one year



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
(Established by Act No.30 of 2008)  
Kukatpally, Hyderabad-500085, Telangana State (India)

**Academic Regulations of M.Pharm. (Regular/Full Time) Programmes, 2019-20 (R19)**  
(CBCS)

(Effective for the students admitted into 1 year from the Academic Year 2019-20 and onwards)

- 1.0 **Post-Graduate Degree Programmes in Pharmacy (PGP in Pharmacy)** Jawaharlal Nehru Technological University Hyderabad (JNTUH) offers **Two** Years (**Four** Semesters) full-time Master of Pharmacy (M.Pharm.) Degree programmes, under Choice Based Credit System (CBCS) at its constituent (non-autonomous) and affiliated colleges in different specializations.
- 2.0 **Eligibility for Admissions**
- 2.1 Admission to the PGPs shall be made subject to eligibility, qualification and specializations prescribed by the University from time to time, for each specialization under each M.Pharm. programme.
- 2.2 Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GPAT Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana State Government (PGECE) for M.Pharm. programmes / an entrance test conducted by JNTUH/ on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.
- 2.3 The medium of instructions for all PG Programmes will be **ENGLISH** only.
- 3.0 **M.Pharm. Programme (PGP in Pharmacy) Structure**
- 3.1 The M.Pharm. Programmes in Pharmacy of JNTUH are of Semester pattern, with **Four** Semesters consisting of **Two** academic years, each academic year having **Two** Semesters (First/Odd and Second/Even Semesters). Each Semester shall be of 22 weeks duration (inclusive of Examinations), with a minimum of 90 instructional days per Semester.
- 3.2 The student shall not take more than four academic years to fulfill all the academic requirements for the award of M.Pharm. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M.Pharm. programme.
- 3.3 **UGC/AICTE** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:
  - 3.3.1 **Semester Scheme**

Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Design/Drawing Subject', or 'Mini Project with Seminar', or 'Dissertation', as the case may be.
  - 3.3.2 **Credit Courses**

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern:



- One credit for one hour/week/semester for theory/lecture (L) courses
- One credit for two hours/ week/semester for laboratory/ practical (P) courses or tutorials (T)

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations and mandatory courses (**Audit Courses**) will not carry any credits.

### 3.3.3 Subject Course Classification

All subjects/courses offered for the Post-Graduate Programme in Pharmacy (M.Pharm. Degree Programme) are broadly classified as follows. The University has followed in general the guidelines issued by AICTE/UGC.

S.No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses (CoC)	PC- Professional Core	Includes subjects related to the Specialization in Pharmacy
		Dissertation	M.Pharm. Project or PG Project or Major Project
		Mini Project with Seminar	Seminar based on core contents related to the Specialization in Pharmacy
2	Elective Courses (EIE)	PE Professional Electives	Includes elective subjects related to the Specialization in Pharmacy
		OE - Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the Specialization in Pharmacy
3	<b>Mandatory Courses</b>	--	<b>Non-Credit Audit Courses</b>

### 4.0 Course Registration

- 4.1 A 'Faculty Advisor or Counselor' shall be assigned to each specialization, who will advise on the Post Graduate Programme (PGP), its Course Structure and Curriculum, Choice/Option for Subjects/ Courses, based on his competence, progress, pre-requisites and interest.
- 4.2 The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of SEEs (Semester End Examinations) of the 'PRECEDING SEMESTER'.
- 4.3 A Student can apply for ON-LINE Registration, ONLY AFTER obtaining the 'WRITTEN APPROVAL' from his Faculty Advisor, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, Faculty Advisor and the Student).
- 4.4 If the Student submits ambiguous choices or multiple options or erroneous entries during ON-LINE Registration for the Subject(s) / Course(s) under a given/ specified Course Group/ Category as listed in the Course Structure, only the first mentioned Subject/ Course in that Category will be taken into consideration.
- 4.5 Subject/ Course Options exercised through ON-LINE Registration are final and CANNOT be changed, nor can they be inter-changed; further, alternate choices also will not be considered. However, if the Subject/ Course that has already been listed for Registration by the University in a Semester could not be offered due to unforeseen or unexpected reasons, then the Student will be allowed to have alternate



choice either for a new Subject, if it is offered, or for another existing Subject (subject to availability of seats). Such alternate arrangements will be made by the Head of Department, with due notification and time-framed schedule, within the FIRST WEEK from the commencement of Class-work for that Semester.

## 5.0 Attendance Requirements

The programmes are offered based on a unit system with each subject being considered a unit. Attendance is calculated separately for each subject.

- 5.1 Attendance in all classes (Lectures/Laboratories) is compulsory. The minimum required attendance in each theory subject (**also mandatory(audit) courses**) including the attendance of mid-term examination / Laboratory etc. is 75%. Two periods of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject. ***This attendance should also be included in the fortnightly upload of attendance to the University. The attendance of mandatory(audit) courses should be uploaded separately to the University.*** A student shall not be permitted to appear for the Semester End Examinations (SEE), if his attendance is less than 75%.
- 5.2 A student's Seminar report and presentation on Mini Project shall be eligible for evaluation, only if he ensures a minimum of 75% of his attendance in Seminar presentation classes on Mini Project during that Semester.
- 5.3 **Condoning of shortage of attendance** (between 65% and 75%) up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and Medical grounds) in each subject (Theory/Lab/Mini Project with Seminar) of a semester shall be granted by the College Academic Committee on genuine reasons.
- 5.4 A prescribed fee per subject shall be payable for condoning shortage of attendance after getting the approval of College Academic Committee for the same. The College Academic Committee shall maintain relevant documents along with the request from the student.
- 5.5 Shortage of Attendance below 65% in any subject shall in **no case be condoned**.
- 5.6 A Student, whose shortage of attendance is not condoned in any Subject(s) (Theory/Lab/Mini Project with Seminar) in any Semester, is considered as 'Detained in that Subject(s), and is not eligible to write Semester End Examination(s) of such Subject(s), (in case of Mini Project with Seminar, his/her Mini Project with Seminar Report or Presentation are not eligible for evaluation) in that Semester; and he/she has to seek re-registration for those Subject(s) in subsequent Semesters, and attend the same as and when offered.
- 5.7 A student fulfills the attendance requirement in the present semester, shall not be eligible for readmission into the same class.
- 5.8
  - a) A student shall put in a minimum required attendance in at least **three theory subjects (excluding mandatory(audit) course)** in first Year I semester for promotion to first Year II Semester.
  - b) A student shall put in a minimum required attendance in at least **three theory subjects (excluding mandatory(audit) course)** in first Year II semester for promotion to second Year I Semester.

## 6.0 Academic Requirements

The following academic requirements must be satisfied, in addition to the attendance requirements mentioned in item no. 5. The performance of the candidate in each semester shall be evaluated subject-



wise, with a maximum of 100 marks per subject / course (theory / practical), based on Internal Evaluation and Semester End Examination.

- 6.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course, if he secures not less than 40% of marks (30 out of 75 marks) in the End Semester Examination, and a minimum of 50% of marks in the sum total of CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of Letter Grades and this implies securing 'B' Grade or above in a subject.
- 6.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Mini Project with seminar, if student secures not less than 50% marks (i.e. 50 out of 100 allotted marks). The student would be treated as failed, if student (i) does not submit a seminar report on Mini Project or does not make a presentation of the same before the evaluation committee as per schedule or (ii) secures less than 50% marks in Mini Project with seminar evaluation. The failed student shall reappear for the above evaluation when the notification for supplementary examination is issued.
- 6.3 A student shall register for all subjects for total of 68 credits as specified and listed in the course structure for the chosen specialization, put in required the attendance and fulfill the academic requirements for securing 68 credits obtaining a minimum of 'B' Grade or above in each subject, and all 68 credits securing Semester Grade Point Average (SGPA)  $\geq 6.0$  (in each semester) and final Cumulative Grade Point Average (CGPA) (i.e., CGPA at the end of PGP)  $\geq 6.0$ , and shall **pass all the mandatory(audit) courses** to complete the PGP successfully.
- Note:** (1) The SGPA will be computed and printed on the marks memo only if the candidate passes in all the subjects offered and gets minimum B grade in all the subjects.
- (2) CGPA is calculated only when the candidate passes in all the subjects offered in all the semesters
- 6.4 Marks and Letter Grades obtained in all those subjects covering the above specified 68 credits alone shall be considered for the calculation of final CGPA, which will be indicated in the Grade Card /Marks Memo of second year second semester.
- 6.5 If a student registers for extra subject(s) (in the parent specialization or other specializations of Pharmacy) other than those listed subjects totaling to 68 credits as specified in the course structure, the performance in extra subject(s) (although evaluated and graded using the same procedure as that of the required 68 credits) will not be considered while calculating the SGPA and CGPA. For such extra subject(s) registered, percentage of marks and Letter Grade alone will be indicated in the Grade Card/Marks Memo, as a performance measure, subject to completion of the attendance and academic requirements as stated in items 5 and 6.1 - 6.3.
- 6.6 When a student is detained due to shortage of attendance in any subject(s) in any semester, no Grade allotment will be made for such subject(s). However, he is eligible for re-registration of such subject(s) in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he is re-registered, by paying the prescribed fees per subject. In all these re-registration cases, the student shall have to secure a fresh set of internal marks and Semester End Examination marks for performance evaluation in such subject(s), and SGPA/CGPA calculations.
- 6.7 A student eligible to appear for the Semester End Examination in any subject, but absent from it or failed (failing to secure 'B' Grade or above), may reappear for that subject at the supplementary examination as and when conducted. In such cases, his Internal Marks assessed earlier for that subject will be carried over, and added to the marks secured in the supplementary examination, for



the purpose of evaluating his performance in that subject.

- 6.8** A Student who fails to earn **68** credits as per the specified course structure, and as indicated above, within **four** academic years from the date of commencement of his first year first semester, shall forfeit his seat in M.Pharm. programme and his admission **shall stand cancelled**.

**7.0 Evaluation - Distribution and Weightage of Marks**

The performance of a student in each semester shall be evaluated subject- wise (irrespective of credits assigned) for a maximum of 100 marks.

- 7.1** For the theory subjects 75 marks shall be awarded for the performance in the Semester End Examination and 25 marks shall be awarded for Continuous Internal Evaluation (CIE). The Continuous Internal Evaluation shall be made based on the average of the marks secured in the two Mid-Term Examinations conducted, first Mid-Term examinations in the middle of the Semester and second Mid-Term examinations during the last week of instruction. Each Mid-Term Examination shall be conducted for a total duration of 120 minutes with Part 'A' as compulsory consisting of 5 questions carrying 2 marks each (10 marks), and Part 'B' with 3 questions to be answered out of 5 questions, each question carrying 5 marks (15 marks). The details of the Question Paper pattern for Semester End Examination (Theory) are given below:
- The Semester End Examination will be conducted for 75 marks. It consists of two parts.
    - i) Part A for 25 marks, ii) Part B for 50 marks.
  - Part A is compulsory and consists of 5 questions, one from each unit and carrying 5 marks each.
  - Part B consists of 5 questions carrying 10 marks each. There will be two questions from each unit and only one should be answered.
- 7.2** For practical subjects, 75 marks shall be awarded for performance in the Semester End Examinations and 25 marks shall be awarded for day-to-day performance as Internal Marks.
- 7.3** For conducting laboratory end examinations of all PG Programmes, one internal examiner and one external examiner are to be appointed by the Principal of the College and this is to be informed to the Director of Evaluation within two weeks, before commencement of the lab end examinations. The external examiner should be selected from outside the College concerned but within the cluster. No external examiner should be appointed from any other College in the same cluster/any other cluster which is run by the same Management.
- 7.4** There shall be Mini Project with Seminar during I year II semester for internal evaluation of 100 marks. The Departmental Academic Committee (DAC) will review the progress of the mini project during the seminar presentations and evaluate the same for 50 marks. Mini Project Viva Voce will be evaluated by the DAC for another 50 marks before the semester end examinations. Student shall carryout the mini project in consultation with the mini project supervisor which may include critically reviewing the literature, project implementation and submit it to the department in the form of a report and shall make an oral presentation before the DAC consisting of Head of the Department, Mini Project supervisor and two other senior faculty members of the department. The student has to secure a minimum of 50% of marks in i) seminar presentation and ii) mini project viva voce, to be declared successful. If he fails to obtain the minimum marks, he has to reappear for the same as and when scheduled.
- 7.5** Every candidate shall be required to submit a dissertation on a topic approved by the Dissertation Review Committee.
- 7.6** A Dissertation Review Committee (DRC) shall be constituted with the Head of the Department as



Chairperson, Dissertation Supervisor and one senior faculty member of the Department offering the M.Pharm. programme.

- 7.7** Registration of Dissertation Work: A candidate is permitted to register for the Dissertation Work after satisfying the attendance requirement in all the subjects, both theory and laboratory.
- 7.8** After satisfying 7.7, a candidate must present in Dissertation Work Review - I, in consultation with his Dissertation Supervisor, the title, objective and plan of action of his Dissertation work to the Dissertation Review Committee (DRC) for approval within four weeks from the commencement of Second year First Semester. Only after obtaining the approval of the DRC can the student initiate the Dissertation work.
- 7.9** If a candidate wishes to change his supervisor or topic of the Dissertation, he can do so with the approval of the DRC. However, the DRC shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of Dissertation proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.
- 7.10** A candidate shall submit his Dissertation progress report in two stages at least with a gap of **three** months between them.
- 7.11** The work on the Dissertation shall be initiated at the beginning of the II year and the duration of the Dissertation is two semesters. A candidate is permitted to submit Dissertation Thesis only after successful completion of all theory and practical courses with the approval of DRC not earlier than 40 weeks from the date of approval of the Dissertation work. For the approval of DRC the candidate shall submit the draft copy of thesis to the Head of the Department and make an oral presentation before the DRC.
- 7.12** The Dissertation Work Review - II in II Year I Sem. carries internal marks of 100. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate the work for the other 50 marks. The Supervisor and DRC will examine the Problem Definition, Objectives, Scope of Work, Literature Survey in the same domain and progress of the Dissertation Work. A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Work Review - II. If he fails to obtain the minimum required marks, he has to reappear for Dissertation Work Review - II as and when conducted.
- 7.13** The Dissertation Work Review - III in II Year II Sem. carries 100 internal marks. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate it for the other 50 marks. The DRC will examine the overall progress of the Dissertation Work and decide whether or not the Dissertation is eligible for final submission. A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Work Review - III. If he fails to obtain the required minimum marks, he has to reappear for Dissertation Work Review - III as and when conducted. For Dissertation Evaluation (Viva Voce) in II Year II Sem. there are external marks of 100 and it is evaluated by the external examiner. The candidate has to secure a minimum of 50% marks in Dissertation Evaluation (Viva-Voce) examination.
- 7.14** Dissertation Work Reviews - II and III shall be conducted in phase I (Regular) and Phase II (Supplementary). Phase II will be conducted only for unsuccessful students in Phase I. The unsuccessful students in Dissertation Work Review - II (Phase II) shall reappear for it at the time of Dissertation Work Review - III (Phase I). These students shall reappear for Dissertation Work Review - III in the next academic year at the time of Dissertation Work Review - II only after completion of Dissertation Work Review - II, and then Dissertation Work Review - III follows. The unsuccessful students in Dissertation Work Review - III (Phase II) shall reappear for Dissertation Work Review - III in the next academic year only at the time of Dissertation Work Review - II (Phase I).



- 7.15 After approval from the DRC, a soft copy of the thesis should be submitted for ANTI-PLAGIARISM check and the plagiarism report should be submitted to the University and be included in the final thesis. The Thesis will be accepted for submission, if the similarity index is less than **30%**. If the similarity index has more than the required percentage, the student is advised to modify accordingly and re-submit the soft copy of the thesis after one month. The maximum number of re-submissions of thesis after plagiarism check is limited to TWO. The candidate has to register for the Dissertation work and work for two semesters. After three attempts, the admission is liable to be cancelled. The college authorities are advised to make plagiarism check of every soft copy of theses before submissions.
- 7.16 Three copies of the Dissertation Thesis certified by the supervisor shall be submitted to the College/School/Institute, after submission of a research paper related to the Dissertation work in a UGC approved journal. A copy of the submitted research paper shall be attached to thesis.
- 7.17 The thesis shall be adjudicated by an external examiner selected by the University. For this, the Principal of the College/School/Institute shall submit a panel of **three** examiners from among the list of experts in the relevant specialization as submitted by the supervisor concerned and Head of the Department.
- 7.18 If the report of the external examiner is unsatisfactory, the candidate shall revise and resubmit the Thesis. If the report of the examiner is unsatisfactory again, the thesis shall be summarily rejected. Subsequent actions for such dissertations may be considered, only on the specific recommendations of the external examiner and /or Dissertation Review Committee. No further correspondence in this matter will be entertained, if there is no specific recommendation for resubmission.
- 7.19 If the report of the examiner is satisfactory, the Head of the Department shall coordinate and make arrangements for the conduct of Dissertation Viva-Voce examination. The Dissertation Viva-Voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the external examiner who adjudicated the Thesis. The candidate has to secure a minimum of 50% of marks in Dissertation Evaluation (Viva-Voce) examination.
- 7.20 If he fails to fulfill the requirements as specified in 7.19, he will reappear for the Dissertation Viva-Voce examination only after three months. In the reappeared examination also, if he fails to fulfill the requirements, he will not be eligible for the award of the degree, unless he is asked to revise and resubmit his Dissertation Work by the board within a specified time period (within **four** years from the date of commencement of his first year first semester).
- 7.21 The Dissertation Viva-Voce External examination marks must be submitted to the University on the day of the examination.
- 7.22 *For mandatory(audit) courses, a student has to secure 40 marks out of 100 marks (i.e. 40% of the marks allotted) in the continuous internal evaluation for passing the subject/course. These marks should also be uploaded along with the internal marks of other subjects.*
- 7.23 *No marks or letter grades shall be allotted for mandatory(audit) courses. Only Pass/Fail shall be indicated in Grade Card.*
- 8.0 Re-Admission/Re-Registration
- 8.1 Re-Admission for Discontinued Student

A student, who has discontinued the M.Pharm. degree programme due to any reason whatsoever, may be considered for 'readmission' into the same degree programme (with the same specialization) with the academic regulations of the batch into which he gets readmitted, with prior permission from the authorities concerned, subject to item 6.6.



- 8.2 If a student is detained in a subject (s) due to shortage of attendance in any semester, he may be permitted to **re-register** for the same subject(s) in the same category (core or elective group) or equivalent subject, if the same subject is not available, as suggested by the Board of Studies of that department, as and when offered in the subsequent semester(s), with the academic regulations of the batch into which he seeks re-registration, with prior permission from the authorities concerned, subject to item 3.2
- 8.3 A candidate shall be given one chance to re-register and attend the classes for a maximum of two subjects, if the internal marks secured by a candidate are less than 50% and failed in those subjects but fulfilled the attendance requirement. A candidate must re-register for failed subjects within four weeks of commencement of the class work and secure the required minimum attendance. In the event of the student taking this chance, his Continuous Internal Evaluation (internal) marks and Semester End Examination marks obtained in the previous attempt stand cancelled.

#### 9.0 Examinations and Assessment - The Grading System

- 9.1 Grades will be awarded to indicate the performance of each student in each Theory Subject, or Lab/Practicals, or Mini Project with Seminar, Dissertation, etc., based on the percentage of marks obtained in CIE + SEE (Continuous Internal Evaluation + Semester End Examination, both taken together) as specified in Item 7 above, and a corresponding Letter Grade shall be given.
- 9.2 As a measure of the student's performance, a 10-point Absolute Grading System using the following Letter Grades (UGC Guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a subject/Course (Class Intervals)	Letter Grade (UGC Guidelines)	Grade Points
90% and above ( $\geq 90\%$ , $\leq 100\%$ )	O (Outstanding)	10
Below 90% but not less than 80% ( $\geq 80\%$ , $< 90\%$ )	A <sup>+</sup> (Excellent)	9
Below 80% but not less than 70% ( $\geq 70\%$ , $< 80\%$ )	A (Very Good)	8
Below 70% but not less than 60% ( $\geq 60\%$ , $< 70\%$ )	B <sup>+</sup> (Good)	7
Below 60% but not less than 50% ( $\geq 50\%$ , $< 60\%$ )	B (above Average)	6
Below 50% ( $< 50\%$ )	F (FAIL)	0
Absent	Ab	0

- 9.3 A student obtaining F Grade in any Subject is deemed to have 'failed' and is required to reappear as 'Supplementary Candidate' for the Semester End Examination (SEE), as and when conducted. In such cases, his Internal Marks (CIE Marks) in those subjects will remain as obtained earlier.
- 9.4 If a student has not appeared for the examinations, 'Ab' Grade will be allocated to him for any subject and shall be considered 'failed' and will be required to reappear as 'Supplementary Candidate' for the Semester End Examination (SEE), as and when conducted.
- 9.5 A Letter Grade does not imply any specific marks percentage; it is only the range of percentage of marks.
- 9.6 In general, a student shall not be permitted to repeat any Subject/ Course (s) only for the sake of 'Grade Improvement' or 'SGPA/ CGPA Improvement'.



- 9.7 A student earns Grade Point (GP) in each Subject/ Course, on the basis of the Letter Grade obtained by him in that Subject/ Course. The corresponding 'Credit Points' (CP) are computed by multiplying the Grade Point with Credits for that particular Subject/ Course.

$$\text{Credit Points (CP)} = \text{Grade Point (GP)} \times \text{Credits} \dots \text{For a Course}$$

- 9.8 The student passes the Subject/ Course only when he gets GP  $\geq 6$  (B Grade or above).
- 9.9 The Semester Grade Point Average (SGPA) is calculated by dividing the Sum of Credit Points ( $\Sigma CP$ ) secured from ALL Subjects/ Courses registered in a Semester, by the Total Number of Credits registered during that Semester. SGPA is rounded off to TWO Decimal Places. SGPA is thus computed as

$$\text{SGPA} = \left\{ \sum_{i=1}^N C_i G_i \right\} / \left\{ \sum_{i=1}^N C_i \right\} \dots \text{For each Semester,}$$

where 'i' is the Subject indicator index (taking into account all Subjects in a Semester), 'N' is the no. of Subjects 'REGISTERED' for the Semester (as specifically required and listed under the Course Structure of the parent Department),  $C_i$  is the no. of Credits allotted to the  $i^{\text{th}}$  Subject, and  $G_i$  represents the Grade Points (GP) corresponding to the Letter Grade awarded for that  $i^{\text{th}}$  Subject.

- 9.10 The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over all Semesters considered for registration. The CGPA is the ratio of the Total Credit Points secured by a student in ALL registered Courses in ALL Semesters, and the Total Number of Credits registered in ALL the Semesters. CGPA is rounded off to TWO Decimal Places. CGPA is thus computed from the I Year Second Semester onwards, at the end of each Semester, as per the formula

$$\text{CGPA} = \left\{ \sum_{i=1}^M C_i G_i \right\} / \left\{ \sum_{i=1}^M C_i \right\} \dots \text{for all S Semesters registered}$$

(ie., upto and inclusive of S Semesters,  $S \geq 2$ ),

where 'M' is the TOTAL no. of Subjects (as specifically required and listed under the Course Structure of the parent Department) the Student has 'REGISTERED' for from the 1<sup>st</sup> Semester onwards upto and inclusive of the Semester S ( obviously  $M > N$  ), 'j' is the Subject indicator index (taking into account all Subjects from 1 to S Semesters),  $C_j$  is the no. of Credits allotted to the  $j^{\text{th}}$  Subject, and  $G_j$  represents the Grade Points (GP) corresponding to the Letter Grade awarded for that  $j^{\text{th}}$  Subject. After registration and completion of I Year I Semester however, the SGPA of that Semester itself may be taken as the CGPA, as there are no cumulative effects.

#### Illustration of calculation of SGPA

Course/Subject	Credits	Letter Grade	Grade points	Credit Points
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	O	10	$4 \times 10 = 40$
Course 3	4	B	6	$4 \times 6 = 24$
Course 4	3	B	6	$3 \times 6 = 18$
Course 5	3	A+	9	$3 \times 9 = 27$
Course 6	3	B	6	$3 \times 6 = 18$
	21			159



$$\text{SGPA} = 159/21 = 7.57$$

**Illustration of calculation of CGPA**

Semester	Credits	SGPA	Credits * SGPA
Semester I	24	7	$24 \times 7 = 168$
Semester II	24	6	$24 \times 6 = 144$
Semester III	24	6.5	$24 \times 6.5 = 156$
Semester IV	24	6	$24 \times 6 = 144$
	96		612

$$\text{CGPA} = 612/96 = 6.37$$

**10.0 Award of Degree and Class**

- 10.1 If a student who registers for all the specified Subjects/ Courses as listed in the Course Structure, satisfies all the Course Requirements, and passes the examinations prescribed in the entire PG Programme (PGP), and secures the required number of **68 Credits** (with  $\text{CGPA} \geq 6.0$ ), shall be declared to have 'QUALIFIED' for the award of the M.Pharm. Degree in the chosen specialization of Pharmacy that he was admitted into.

**10.2 Award of Class**

After a student has earned the requirements prescribed for the completion of the programme and is eligible for the award of M.Pharm. Degree, he shall be placed in one of the following three classes based on the CGPA:

Class Awarded	CGPA
First Class with Distinction	$\geq 7.75$
First Class	$6.75 \leq \text{CGPA} < 7.75$
Second Class	$6.00 \leq \text{CGPA} < 6.75$

A student with final CGPA (at the end of the **PGP**)  $< 6.00$  shall not be eligible for the Award of Degree.

**11.0 Withholding of Results**

If the student has not paid the dues, if any, to the University or if any case of indiscipline is pending against him, the result and degree of the student will be withheld and he will not be allowed into the next semester.

**12.0 General**

- 12.1 **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
- 12.2 **Credit Point:** It is the product of grade point and number of credits for a course.
- 12.3 Wherever the words "he", "him", "his", occur in the regulations, they shall include "she", "her".
- 12.4 The academic regulation should be read as a whole for the purpose of any interpretation.



- 12.5** In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the University is final.
- 12.6** The University may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the University.

**MALPRACTICES RULES****DISCIPLINARY ACTION FOR IMPROPER CONDUCT IN EXAMINATIONS**

S.No	Nature of Malpractices/Improper conduct	Punishment
	If the candidate:	
1.(a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject to the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination).	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject to the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.
3.	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate, who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already



	answer book or additional sheet, during or after the examination.	appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
6.	Refuses to obey the orders of the Chief Superintendent/Assistant – Superintendent/ any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in- charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	Incase of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the



		remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.
9.	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action to award suitable punishment.	

**Malpractices identified by squad or special invigilators**

1. Punishments to the candidates as per the above guidelines.
2. Punishment for institutions: (if the squad reports that the college is also involved in encouraging malpractices)
  - (i) A show cause notice shall be issued to the college.
  - (ii) Impose a suitable fine on the college.
  - (iii) Shifting the examination centre from the college to another college for a specific period of not less than one year



**DEPARTMENT OF PHARMACY**  
**B. PHARMACY SEMESTER-I FACULTY WORK LOAD**  
**ACADEMIC YEAR-2022-2023**

S.No	Name of the faculty	Subjects	Class	No of periods	Total Workload	signature
1	K. USHA	IMA	IV-A,B	16	20	Usha.k
		COS	III B	4		
2	G.SWAPNA RANI	POC-II	II A,B	16	20	G Swap
		MC-II	III A	4		
3	S. MAHENDER	P.COL-II	III-A,B	16	20	S.Mf
		P.P	IV-B	4		
4	V.BALASUBRAMANYAM	IP-II	IV-A,B	8	20	Balu
		PE	IIA,B	12		
5	R. ASHOK KUMAR	PP-I	II-A,B	16	16	Rashok
6	N. SARITHA	NDDS	IV-A	4	20	N. Saritha
		IP-I	III-A,B	16		
7	B. SOUJANYA	P.COG&P HYTO	III-A,B	16	20	B Soujanya
		PP-1	II-B	4		
8	K. DILEEP KUMAR	NDDS	IV-A	4	20	K. Dileep
		P.CEU	I-A,B	16		
9	M. UMARANI	PIC	I-A,B	16	20	Umarani M
		IPI	III-A	4		
10	P. NAGARAJU	HAP	I-A,B	16	20	P. Nagaraju
		P.COL-II	III-B	4		
11	ASHOKACHAKRAVARTHI	P.PRACTI CE	IV-A	4	20	Ashok
		P.MICRO	II-A,B	16		
12	S. KOTI REDDY	IT	IV-A,B	8	20	S. Koti Reddy
		PIC	I-A,B	12		
13	V.GANESH	ES	III-A,B	2	18	V. Ganesh
		IMA	IV-A,B	16		
14	B.SURESH KUMAR	P.A	I-A,B	16	16	B. Suresh
15	A. ANIL KUMAR	QC & SH	IV-A,B	8	16	A. Anil
		MC-II	III-B	8		



**PRINCIPAL**  
**AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



16	K.SANDHYA	COS	III-A,B	8	20	<i>K.Sandhya</i>
		NDDS	IV-A,B	8		
		P.E	II-A	4		
17	A. SHRUTHI	P.COL-II	III-A,B	16	20	<i>A.Shruthi</i>
		HAP	I-B	4		
18	K.VIMALA	RM	I-A,B	6	16	<i>K.Vimala</i>
		RM	PD-1	7		
		BSRM	PD-IV	3		
19	LAXMI KANTHARAO	CS	I-A,B	8	10	<i>L.Kantharao</i>
		ES	III-A,B	2		
20	V. KAVITHA	P.A	I-A,B	16	20	<i>V.Kavitha</i>
		P.CO&G & PHYTO	III-B	4		
21	K.SHAILAJA	IMA	IV-A,B	16	16	<i>K.Shailaja</i>
22	D.BALU	P.CEU	I-A,B	16	20	<i>D.Balu</i>
		PE	II-I A	4		
23	N.SAROJA	P COG & PHYTO	III-A,B	16	20	<i>N.Saroja</i>
		P.PRAC	IV-B	4		
24	S. SWATHI	POC-II	II-A,B	16	20	<i>S.Swathi</i>
		MC-II	III-A	4		
25	K. MADHURI	HAP	I-A,B	16	16	<i>K.Madhuri</i>

*M.R. Kishor*  
HOD



*[Signature]*  
PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



**DEPARTMENT OF PHARMACY**  
**B. PHARMACY SEMESTER-II FACULTY WORK LOAD**  
**ACADEMIC YEAR-2022-2023**

S.No	Name of the faculty	Subjects	Class	No of periods	Total Workload	signature
1	K. USHA	BIOTECH	III-A,B	8	20	<i>Usha K.</i>
		POC-III	IIA,B	8		
			II-II	4		
2	G.SWAPNA RANI	POC-I	I A,B	16	20	<i>G. Swapna</i>
		POC-III	II A	4		
3	S. MAHENDER	PATHO	I-A,B	16	20	<i>S. Mahender</i>
		E.COL	IV-A,B	4		
4	V.BALASUBRAMANYAM	SPP	IV-A,B	8	16	<i>V.B. Subramanyam</i>
		BPPK	III-A,B	8		
5	R. ASHOK KUMAR	BPPK	III-A,B	16	16	<i>R. Ashok Kumar</i>
6	N. SARITHA	HDT	IIIA,B	16	20	<i>N. Saritha</i>
7	B. SOUJANYA	P.COG&PHYTO	II-A,B	16	20	<i>B. Soujanya</i>
8	K. DILEEP KUMAR	BSRM	IV-A,B	8	12	<i>K. Dileep Kumar</i>
		BPPK	III-A	4		
9	M. UMARANI	SPP	IVA,B	16	20	<i>M. Umarani</i>
		BPPK	IIIA	4		
10	P. NAGARAJU	HAP	I-A,B	16	20	<i>P. Nagaraju</i>
		P.COL-III(P)	III-B	4		
11	ASHOKACHAKRAVARTHI	P.CEU	II-A,B	16	16	<i>Ch. Ashokachakravarthi</i>
12	S. KOTI REDDY	BIOCHEM	I-A,B	16	16	<i>S. Koti Reddy</i>
13	V.GANESH	PJ	IV-A,B	8	16	<i>V. Ganesh</i>
		BSRM	IV-A,B	8		
14	B.SURESH KUMAR	PJ	IV-A,B	8	12	<i>B. Suresh Kumar</i>



**PRINCIPAL**

**AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



		P-COL(P)	IIB	4		
15	A. ANIL KUMAR	BIOCHEM	I AB	16	24	
		MC(T)	II-AB	4		
16	K.SANDHYA	E.COL	IVA,B	8	16	
		MC-I	IIAB	8		
17	A. SHRUTHI	P.COL-I	II-A,B	16	20	
		P.COL-III	IIA	4		
18	LAXMI KANTHARAO	CAP	I-A,B	8	12	
		GS	III-A,B	2		
		HVE	III-A,B	2		
19	V. KAVITHA	P.CO&G PHYTO	II-A,B	16	16	
20	K.SHAILAJA	POC-II	I-A,B	8	12	
		MC-III	IIIA	4		
21	D.BALU	P.CEU-1	II-A,B	16	16	
22	N.SAROJA	HAP	I-A,B	16	16	
23	S. SWATHI	POC-II	II-A	4	20	
		MC-III	III-A,B	16		
24	K. MADHURI	PATHO	I-A,B	8	16	
		E.COL	IV-A,B	8		

MR.   
HOD



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## PHARM D WORK LOAD 2022-2023

S.No	Name of the faculty	Subjects	Class	No of periods	Total Workload	signature
1	MD.ABDUL AZEEM	M.BIO	I YR	7	21	
		P.COL-II	III YR	7		
		CP	IV YR	7		
2	P. SWATHI PATEL	HAP	I YR	7	17	
		CP	II YR	3		
		CT	IV YR	3		
		CR	V YR	4		
3	RAVI NAYAK	HP	IV YR	6	16	
		PJ	III YR	2		
		P.MICRO	II YR	7		
		CLERKSHIP	V YR	1		
4	EMMANUEL EVANGILEEN	P.THER-II	III YR	7	21	
		P.THER-I	II YR	7		
		EPIDEMOLOGY	V YR	7		
5	DR. V. ANUDEEP	PATHO	II YR	4	21	
		P.THRER-III	IV YR	7		
		CP&PTDM	V YR	3		
		PA	III YR	7		
6	T.MAHENDER	POC	I YR	7	21	
		MC	III YR	7		
		BPPK	IV YR	7		
7	AYESHA BINTH SALEH	P.COL-I	II YR	7	16	
		PIC	I YR	6		
		BSRM		3		
			IVYR			
8	I. SWATHI	P.CEUT	I YR	6	20	
		PF	III YR	6		
		P.CEU	II-II(A,B) B.PHARM	8		
9	P.V PAVAN KUMAR	PF	III YR	6	19	
		P.CO&PHYTO	II YR	7		
		P.CEUT	I YR	6		



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



S.No	Name of the faculty	Subjects	Class	No of periods	Total Workload	signature
10	MD. ALEEMUDDIN	BSRM HOSPITAL VISIT	IV YR (PA)	3	12	
				9		
11	M SWATHI	HP	4	6	16	
		PJ	3	2		
		P.MICRO	2	7		
		CLERKSHIP	5	1		
12	P.SRILATHA	PF	3	6	19	
		P.CO&PHYTO	2	7		
		P.CEU	1	6		

HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DEPARTMENT OF PHARMACY  
M. PHARMACY I,II YR-SEMESTER-I FACULTY WORK LOAD  
ACADEMIC YEAR-2022-2023

S.No	Name of the faculty	Subjects	Class	No of periods	Total Workload	signature
1	Dr. NIHAR RANJAN DAS	MPAT	IYR(PA)	10	14	
		STT	IYR(PA)	4		
2	Dr. G. SAI KIRAN	PFA	IYR(PA)	10	14	
		STT	IYR(CEU)	4		
3	Dr.K.BALAJI	RM&IPR	IYR(PA)	2	8	
		RM&IPR	IYR(CEU)	2		
		SEMINAR& ASSI	IYR(P.A)	4		
4	Dr. M. RAMAKRISHNA	SEMINAR& ASSI	IYR(PA)	4	14	
		SEMINAR& ASSI	IYR(P.CEU)	4		
		AC-1	IYR(PA)	2		
		CS	IYR(P.CEU)	4		
5	Dr.B MANJULA	MP-1	IYR(P.A)	10	12	
		CS	IYR(P.A)	4		
6	Dr. VISHNU SRAVAN BOLLU	PV	IYR(P.A)	4	10	
		APP	IYR(P.CEU)	4		
		RM&IPR	IYR(P.CEU)	2		
7	P.LAVANYA	ABPPK	IYR(P.CEU)	10	10	
8	T. MADHURI	APA	IYR(PA)	4	10	
		AC-1	IYR(P.CEU)	2		
		CS	IYR(PA)	4		

HOD



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### M. PHARMACY I,II SEMESTER-II FACULTY WORK LOAD ACADEMIC YEAR-2022-2023

S.No	Name of the faculty	Subjects	Class	No of periods	Total Workload	signature
1	Dr. NIHAR RANJAN DAS	AIA-1	IYR(PA)	10	20	
		MINI PROJECT	IYR(P.CEU)	2		
		STT	IYR(PA)	4		
		DWR-III/DVV	IYR(P.A,PCEU)	4		
2	Dr. G. SAI KIRAN	PQC&QA	IYR(PA)	10	20	
		AC-II	IYR(P.CEU)	2		
		STT	IYR(CEU)	4		
		DWR-III/DVV	IYR(PA,P.CEU)	4		
3	Dr.K.BALAJI	HC	IYR(PA)	4	10	
		MINI PROJECT	IYR(CEU)	2		
		HC	IYR(P.CEU)	4		
4	Dr. M. RAMAKRISHNA	NC	IYR(PA)	4	20	
		SEMINAR	IYR(P.CEU)	4		
		NC	IYR(PCEU)	4		
		CS	IYR(P.CEU)	4		
		DWR-III/DVV	IYR(P.A)	4		
5	Dr.B MANJULA	SEMINAR	IYR(P.A)	4	20	
		MP-II	IYR(P.CEU)	10		
		CS	IYR(P.CEU)	4		
		DWR-III	IYR(P.CEU)	2		
6	Dr. VISHNU SRAVAN BOLLU	AC-II	IYR(P.A)	2	18	
		ADDS	IYR(P.CEU)	10		
		DWR-III/DVV	IYR(P.A,PCEU)	8		
7	P.LAVANYA	DWR-III/DVV	IYR(P.CEU)	8	16	
		DWR-III/DVV	IYR(PA)	8		
8	T. MADHURI	DWR-III/DVV	IYR(PA)	8	16	
		DWR-III/DVV	IYR(P.CEU)	8		

HOD



PRINCIPAL  
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm I-I SEM (SEC-A)

W.E. F: 28.11.22

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I : HAP- IBATCH-II : PA-I				L  U  N  C  H	PA-I	CS	HAP-I (T)
TUE	BATCH-I : PA-I BATCH-II : HAPI					PH.CEU-I	RM	PIC (T)
WED	BATCH-I : PIC BATCH-II : PH.CEU-I					HAP-I	PA-I	RM
THU	BATCH-I: PH. CEU- IBATCH-II: PIC					PH.CEU-I (T)	PIC	RM
FRI	PA-I	PH. CEU-I	PIC	HAP-I		RM	CS-LAB-A LIBRARY-B	
SAT	PH. CEU-I	HAP-I	PA-I(T)	PIC		CS	CS-LAB-B LIBRARY-A	

SUBJECT NAME	FACULTY NAME	DESIGNATION
Human Anatomy & Physiology	P. Nagaraju/K. Madhuri	Assistant Professor/ Assistant Professor
Pharmaceutical Analysis	V. Kavitha	Assistant Professor
Pharmaceutics	D. Balu/ K. Dileep Kumar	Assistant Professor/ Assistant Professor
Pharmaceutical Inorganic Chemistry	M. Umarani/S. Koti Reddy	Assistant Professor/ Assistant Professor
Communication Skills	B. Laxmi Kantharao	Assistant Professor
Remedial Biology/Remedial Maths	K. Vimala	Assistant Professor
Human Anatomy & Physiology Lab	P. Nagaraju/ K. Madhuri	Assistant Professor/ Assistant Professor
Pharmaceutical Analysis Lab	V. Kavitha	Assistant Professor
Pharmaceutics Lab	D. Balu/ K. Dileep Kumar	Assistant Professor/ Assistant Professor
Pharmaceutical Inorganic Chemistry Lab	M. Umarani	Assistant Professor

M.R. Kishore

HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm I-I SEM (SEC-B)

W.E. F: 28.11.22

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I : PIC BATCH-II : PH. CEU-I				L U N C H	PA-I	HAP-I	CS
TUE	BATCH-I: PH. CEU-I BATCH-II: PIC					RM	PH. CEU-I	PIC
WED	BATCH-I : HAP-I BATCH-II : PA-I					RM	PA-I	HAP-I (T)
THU	BATCH-I : PA-I BATCH-II : HAP-I					RM	PIC	PH. CEU-(T)
FRI	PA-I(T)	PH. CEU-I	CS-LAB-A LIBRARY-B			CS	PIC	HAP-I
SAT	PH. CEU-I	HAP-I	CS-LAB-B LIBRARY-A			RM	PA-I	PIC (T)

SUBJECT NAME	FACULTY NAME	DESIGNATION
Human Anatomy & Physiology	P. Nagaraju/ K. Madhuri	Assistant Professor
Pharmaceutical Analysis	V. Kavitha	Assistant Professor
Pharmaceutics	D. Balu/ K. Dileep Kumar	Assistant Professor/ Assistant Professor
Pharmaceutical Inorganic Chemistry	M. Umarani/S. Koti Reddy	Assistant Professor/ Assistant Professor
Communication Skills	B. LaxmiKantharao	Assistant Professor
Remedial Biology/Remedial Maths	K. Vimala	Assistant Professor
Human Anatomy & Physiology Lab	P. Nagaraju/ A. Shruthi/ K. Madhuri	Assistant Professor/ Assistant Professors
Pharmaceutical Analysis Lab	V. Kavitha	Assistant Professor
Pharmaceutics lab	D. Balu/ K. Dileep Kumar	Assistant Professor/ Assistant Professor
Pharmaceutical Inorganic Chemistry Lab	M. Umarani/S. Koti Reddy	Assistant Professor/ Assistant Professor

M.R. Kirish  
HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

**B. Pharm II-I SEM (SEC-A) W.E. F: 28.11.22**

**COLLEGE TIMINGS: 09.30AM -03.50PM**

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I BATCH-II	P.P-I POC-II			L  U  N  C  H	P.P.-I	P. MICRO	LIBRARY
TUE	BATCH-I BATCH-II	POC-II P.P-I				P.P.-I	POC-II (T)	P.E
WED	BATCH- I BATCH- II	P. MICRO P.E				P. MICRO	LIBRARY	POC-II
THU	BATCH-I BATCH-II	P.E P. MICRO				P.P.-I	P.E	POC-II
FRI	POC-II	P.P.-I	LIBRARY	P.E(T)		P. MICRO	SPORTS	
SAT	P. MICRO (T)	P.E	P.P.-I(T)	POC-II		NSO		

SUBJECT NAME	FACULTY NAME	DESIGNATION
Pharmaceutical Organic Chemistry-I	G.Swapna Rani/S. Swathi	Associate Professor /Assistant Professor
Physical Pharmaceutics-I	R. Ashok Kumar	Assistant Professor
Pharmaceutical Microbiology	Ashokachakravarthy	Assistant Professor
Pharmaceutical Engineering	V.Balasubramanyam	Assistant Professor
Pharmaceutical Organic Chemistry-II Lab	G.Swapna Rani/ S. Swathi	Associate Professor Assistant Professor
Physical Pharmaceutics-I Lab	B. Soujanya. /R.Ashok Kumar	Assistant Professor
Pharmaceutical Microbiology Lab	Ashokachakravarthy/A. Shailaja	Assistant Professor
Pharmaceutical Engineering Lab	D. Balu/ K. Sandhya	Assistant Professor/ Assistant Professor/ Assistant Professor

M.R. Kirish  
HOD



PRINCIPAL

PRINCIPAL

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm II-I SEM (SEC-B) W.E. F: 28.11.22

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I BATCH-II	POC-II P.P-I			L	P.P-I	PMICRO(T)	P.E
TUE	BATCH-I BATCH-II	P.P-I POC-II			U	P.P-I	POC-II	P.E(T)
WED	BATCH- I BATCH- II	P.E P. MICRO			N	P. MICRO	LIBRARY	POC-II (T)
THU	BATCH-I BATCH-II	P. MICRO	P.E		C	P.P-I	POC-II	LIBRARY
FRI	POC-II	P.P-I (T)	LIBRARY	P.E	H	P. MICRO	SPORTS	
SAT	P. MICRO	P.E	P.P-I	POC-II			NSO	

SUBJECT NAME	FACULTY NAME	DESIGNATION
Pharmaceutical Organic Chemistry-II	G.Swapna Rani/ S. Swathi	Associate Professor/ Assistant Professor/
Physical Pharmaceutics-I	R. Ashok Kumar	Assistant Professor
Pharmaceutical Microbiology	Ashokachakravarthy	Assistant Professor
Pharmaceutical Engineering	V.Balasubramanyam	Assistant Professor
Pharmaceutical Organic Chemistry-II Lab	G.Swapna Rani/ S. Swathi	Associate Professor
Physical Pharmaceutics-I Lab	B. Soujanya/ R.Ashok Kumar	Assistant Professor
Pharmaceutical Microbiology Lab	Ashokachakravarthy	Assistant Professor
Pharmaceutical Engineering Lab	V. Balasubramanyam	Assistant Professor
Sports	M.Rajashekar	Pd

M.R. Kishore  
HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm III-I SEM (SEC-A)

W.E. F:09.09.22

COLLEGE TIMINGS: 09.30AM –03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	COS	M.C.-II	P.COII-II	P.COL-II	L	I.P-I	P.COII-II (T)	EVS
TUE	BATCH-I P.COL-II BATCH-II I.P-I				U	LIBRARY	I.P-I	M.C-II (T)
WED	P.COII-II	SEMINAR			N	COS (T)	P.COII-II	P.COL-II
THU	BATCH-I I.P-I BATCH-II P.COL-II				C	P.COII-II	M.C-II	LIBRARY
FRI	BATCH-I P.COII-II BATCH-II LIBRARY/SPORTS				H	COS	I.P-I (T)	P.COL-II
SAT	BATCH-I LIBRARY/SPORTS BATCH-II P.COII-II					M.C-II	P.COL-II (T)	I.P-I

SUBJECT NAME	FACULTY NAME	DESIGNATION
Medicinal Chemistry II	G.Swapna Rani/ S. Swathi	Assistant Professor/ Assistant Professor/
Industrial Pharmacy - I	N.Saritha	Assistant Professor
Pharmacology II	A. Shruthi/S. Mahender	Associate Professor/ Assistant Professor/
Pharmacognosy And Phytochemistry - II	N. Saroja /B. Soujanya	Assistant Professor/ Assistant Professor/
Cosmeti Science	K. Sandhya/A. Shailaja	Assistant Professor/ Assistant Professor/
Environmental Sciences	B. Laxmi Kantharao/V. Ganesh	Assistant Professor/ Assistant Professor/
Medicinal Chemistry II Lab	N.Saritha	Assistant Professor
Industrial Pharmacy – I Lab	M. Umarani	Assistant Professor
Pharmacology - II Lab	A. Shruthi/ S. Mahender	Associate Professor/ Assistant Professor
Pharmacognosy And Phytochemistry – II Lab	N. Saroja /B. Soujanya	Assistant Professor/ Assistant Professor/
Sports	M.Rajashekar	Pd

M.R. Kishore  
HOD



PRINCIPAL

PRINCIPAL

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm III-I SEM (SEC-B) W.E. F: 09.09.22 COLLEGE TIMINGS: 09.30AM –03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	COS	M.C.-II	P.COII-II	P.COL-II	L	I.P-I	P.COII(T)	EVS
TUE	BATCH-I P.COL-II BATCH-II I.P-I				U	LIBRARY	I.P-I	M.C-II(T)
WED	P.COII-II	SEMINAR			N	COS(T)	P.COII-II	P.COL-II
THU	BATCH-I I.P-I BATCH-II P.COL-II				C	P.COII-II	M.C-II	LIBRARY
FRI	BATCH-I P.COII-II BATCH-II LIBRARY/SPORTS				H	COS	I.P-I(T)	P.COL-II
SAT	BATCH-I LIBRARY/SPORTSBATCH-II P.COII-II					M.C-II	P.COL-II(T)	I.P-I

SUBJECT NAME	FACULTY NAME	DESIGNATION
Medicinal Chemistry II	A. Anil Kumar	Assistant Professor
Industrial Pharmacy - I	N.Saritha	Assistant Professor
Pharmacology II	A. Shruthi/ S. Mahender	Associate Professor/ Assistant Professor/
Pharmacognosy And Phytochemistry - II	B. Soujanya/ N. Saroja	Assistant Professor/ Assistant Professor/
Cosmetic Science	K. Sandhya/K. Usha/ A.Shailaja	Assistant Professor/ Assistant Professor/
Environmental Sciences	B. Laxmi Kantharao/ V. Ganesh	Assistant Professor/ Assistant Professor/
Medicinal Chemistry I Lab	A. Anil Kumar	Assistant Professor
Industrial Pharmacy – I Lab	N.Saritha	Assistant Professor
Pharmacology - II Lab	A. Shruthi /P. Nagaraju/ S.Mahender	Associate Professor / Assistant Professor/ Assistant Professor/
Pharmacognosy And Phytochemistry – II Lab	N. Saroja/ B. Soujanya /V.Kavitha	Assistant Professor
Sports		Pd

M.R. Kish  
HOD



PRINCIPAL

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

Gunthapally (V), Abdullapurmet (M)

R.R. Dist. Telangana.

Committed to Excellence in Technical Education



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm IV-I SEM (SEC-B) W.E. F: 29.08.22 COLLEGE TIMINGS: 09.30AM –03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	IMA	IP-II	Ph.PRACTICE	NDDS	L	QC&S H(T)	IT	
TUE	BATCH-I BATCH - II	SPORTS Ph.PRACTICE E			U	IMA	Ph.PRACTICE E(T)	IP-II
WED	IP-II	IMA	QC&SH	LIBRARY	N C H	NDD S(T)	SEMINA R (IS/P.PH)	
THU	BATCH-I BATCH - II	IMA SPORT S				IMA (T)	Ph. PRACTICE	NDDS
FRI	BATCH-I	Ph.PRACTICE BATCH -II	IMA			NDDS	QC&SH	LIBRARY
SAT	Ph.PRACTICE	QC&SH	SEMINA R (IS/P.PH)			IP-II (T)	SEMINA R (IS/P.PH)	

SUBJECT NAME	FACULTY NAME	DESIGNATION
Instrumental Methods Of Analysis	K. Usha/P. Srilatha/ V. Ganesh	Associate Professor/ Assistant Professor/ Assistant Professor/
Industrial Pharmacy-II	Balasubramanyam	Assistant Professor
Pharmacy Practice	S. Mahender/ N. Saroja	Assistant Professor/ Assistant Professor/
Novel Drug Delivery System	K. Sandhya	Assistant Professor
Quality Control And Standardization Of Herbals	A. Anil Kumar	Assistant Professor
Instrumental Methods Of Analysis Lab	K. Shailaja /K. Usha/V. Ganesh	Assistant Professor/ Assistant Professor/
Practice School	A.Shailaja	Assistant Professor
Industrial Training	S. Koti Reddy	Associate Professor
Sports	M.Rajashekar	Pd

MR. K. K. K.  
HOD



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

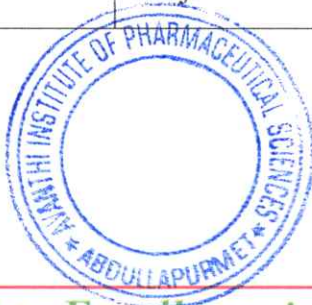
### A.Y 2022-23 TIME TABLE

B. Pharm IV-I SEM (SEC-A) W.E. F:29.08.22 COLLEGE TIMINGS: 09.00AM -03.50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I BATCH - II	IMA SPORT S			L  U  N  C H	IP-II	Ph. PRACTICE	NDD S(T)
TUE	IMA	IP-II (T)	QC&SH	Ph .PRACTIC E(T)		NDDS	IT	
WED	IP-II	Ph. PRACTICE	LIBRAR Y	QC&SH		IMA	SEMINAR	
THU	BATCH-I BATCH - II	Ph. PRACTICE IMA				NDDS	LIBRARY	IM A (T)
FRI	NDDS	IP-II	SEMINAR			IMA	QC&SH (T)	Ph. PRACTICE
SAT	BATCH-I BATCH - II	SPORTS Ph. PRACTICE				QC&SH	SEMINAR	

SUBJECT NAME	FACULTY NAME	DESIGNATION
Instrumental Methods Of Analysis	P. Srilatha/ V. Ganesh/ K. Shailaja	Assistant Professor/ Assistant Professor/ Assistant Professor/
Industrial Pharmacy-Ii	Balasubramanyam	Assistant Professor
Pharmacy Practice	Ashoka Chakravarthi	Assistant Professor
Novel Drug Delivery System	K. Sandhya/N. Saritha/ K. Dileep Kumar	Assistant Professor/ Assistant Professor// Assistant Professor/
Quality Control And Standardization Of Herbals	A. Anil kumar	Assistant Professor
Instrumental Methods Of Analysis Lab	K. Usha/K. Shailaja /V. Ganesh	Assistant Professor/ Assistant Professor// Assistant Professor/
Practice School	A. Shailaja	Associate Professor
Industrial Training	S. Koti Reddy	Assistant Professor
Sports	M.Rajashekar	Pd

MR. Kishu  
HOD



PRINCIPAL  
PRINCIPAL

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

**B. pharm I-II SEM (SEC-A) W.E. F: 01.05.2023 COLLEGE TIMINGS: 09.30AM -03.50PM**

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I BATCH-II	HAP-II LIBRARY/SPORTS			L U N C H	BIOCHEM	P.PHY	POC-I
TUE	BATCH-I BATCH-II	BIOCHEM POC-I				HAP-II	CA	P.PHY (T)
WED	BATCH-I BATCH-II	LIBRARY/SPORTS HAP-II				BIOCHEM	POC-I	CA
THU	BATCH-I BATCH-II	NSS CA	P. PHY	HAP-II		CA	POC-I	NSS
FRI	BATCH-I BATCH-II	POC-I BIOCHEM				BIOCHEM	HAP-II	POC-I (T)
SAT	BATCH-I BATCH-II	CA NSS	BIOCHEM	HAP-II (T)		BIOCHEM (T)	POC-I	P.PHY

SUBJECT NAME	FACULTY NAME	DESIGNATION
Human Anatomy And Physiology II	P. Nagaraju/N.Saroja	Assistant Professor/ Assistant Professor
Pharmaceutical Organic Chemistry-I	G. Swapna Rani	Associate Professor
Biochemistry	A. Anil Kumar/S.Koti Reddy	Assistant Professors
Pathophysiology	S. Mahender/K.Madhuri	Assistant Professors
Computer Applications In Pharmacy	B. Laxmikantharao	Assistant Professor
Human Anatomy And Physiology IILab	P. Nagaraju/ N.Saroja	Assistant Professors
Pharmaceutical Organic Chemistry-I Lab	G. Swapna Rani /K.Shailaja	Associate Professor/ Assistant Professor
Biochemistry Lab	A. Anil Kumar/S.Koti Reddy	Assistant Professors
Computer Applications In Pharmacy Lab	B. Laxmi Kantharao	Assistant Professor
Sports	M. Rajashekar	Pd

MR. K. K. K.  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



**DEPARTMENT OF PHARMACY**

**A.Y 2022-23 TIME TABLE**

**B. pharm I-II SEM (SEC-B)**

**W.E. F. : 01.05.23**

**COLLEGE TIMINGS: 09.30AM –03.50PM**

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
<b>MON</b>	BATCH-I BATCH-II	HAP-II BIOCHEM			L	BIOCHEM	CA	POC-I
<b>TUE</b>	BATCH-I BATCH-II	CA NSS	BIOCHEM	CA	U	HAP-II	POC-I (T)	P.PHY
<b>WED</b>	BATCH-I BATCH-II	BIOCHEM HAP-II			N	POC-I	HAP-II	LIBRARY
<b>THU</b>	BATCH-I BATCH-II	LIBRARY/SPORTS POC-I			C	P.PHY (T)	POC-I	HAP-II (T)
<b>FRI</b>	BATCH-II BATCH-I	CA NSS	SS	HAP-II	H	P.PHY	BIOCHEM	POC-I
<b>SAT</b>	BATCH-I BATCH-II	POC-I LIBRARY/SPORTS				BIOCHEM (T)	CA	P.PHY

SUBJECT NAME	FACULTY NAME	DESIGNATION
Human Anatomy And Physiology II	P. Nagaraju/ N.Saroja	Assistant Professors
Pharmaceutical Organic Chemistry-I	G. Swapna Rani	Assistant Professor
Biochemistry	A. Anil Kumar/S.Koti Reddy	Assistant Professors
Pathophysiology	S. Mahender/ K.Madhuri	Assistant Professors
Computer Applications In Pharmacy	B. Laxmikantharao	Assistant Professor
Human Anatomy And Physiology II Lab	P. Nagaraju/ N.Saroja	Associate/Assistant Professor
Pharmaceutical Organic Chemistry-I Lab	G. Swapna Rani /K.Shailaja	Associate/Assistant Professor
Biochemistry Lab	A. Anil Kumar/S.Koti Reddy	Assistant Professors
Computer Applications In Pharmacy Lab	B. Laxmi Kantharao	Assistant Professor
Sports	M. Rajashekar	Assistant Professor

**MR Kishu**  
**HOD**



**PRINCIPAL**  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M).  
R.R. Dist. Telangana.

**Committed to Excellence in Technical Education**



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

**B. Pharm II-II SEM (SEC-A) W.E. F: 01.05.23**

**COLLEGE TIMINGS: 09.30AM –03.50PM**

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I BATCH-II	PCOL-I MC-I			L	P.CO-I	MC-I	P.COL-I (T)
TUE	BATCH-I BATCH-II	G.S /SEMINAR LIBRARY/SPORTS		MC-I (T)	U	P.P.-II	POC-III	P.CO-I
WED	BATCH-I BATCH-II	MC-I P.COL-I			N	P.CO-I	P.P.-II	POC-III
THU	BATCH-I BATCH-II	P.P.-II(IS) P.CO-I			C	P.P.-II	P.COL-I	POC-III (T)
FRI	BATCH-I LIBRARY/SPORTS BATCH-II	G.S / SEMINAR		MC-I	H	POC-III	P.COL-I	P.CO-I (T)
SAT	BATCH-I BATCH-II	P.CO-I P/P-II				P.COL-I	MC-I	P.P.-II (T)

Subject Name	Faculty Name	Designation
Pharmaceutical Organic Chemistry-III	G. Swapna/ K.Usha/	Associate /Assistant Professor
Pharmaceutics-I	D. Balu/Ashokachakravarthi	Assistant Professors
Pharmacology-I	A. Shruthi	Assistant Professor
Pharmacognosy And Phytochemistry-I	B. Soujanya/V. Kavitha	Assistant Professors
Medicinal chemistry-I	A. Anil kumar	Associate Professor
Medicinal chemistry-I Lab	K.Sandhya	Associate Professor
Physical Pharmaceutics-II Lab	D. Balu	Assistant Professors
Pharmacology-I Lab	A. Shruthi	Assistant Professors
Pharmacognosy And Phytochemistry-I Lab	B. Soujanya/ V. Kavitha	Assistant Professors
Gender Sensitization Lab	B. Laxmi Kantharao	Assistant Professor
Sports	M.Rajashekar	Assistant Professor

MR. K. N. S.  
HOD



PRINCIPAL

PRINCIPAL

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

**B. Pharm II-II SEM (SEC-B) W.E. F: 01.05.23**

**COLLEGE TIMINGS: 09.30AM –03.50PM**

DAYS	9.30AM-10.20AM	10.20AM - 11.10M	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M- 2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I G.S / SEMINAR BATCH-II LIBRARY/SPORTS			MC-I	L	P.COGE-I	POC-III	P.COL-I (T)
TUE	BATCH-I P.COL-I BATCH-II MC-I				U	P.COGE-I	POC-III	P.P.-II
WED	BATCH-I MC-I BATCH-II LIBRARY/SPORTS			P.P.-II	N	P.COGE-I	MC-I (T)	POC-III
THU	BATCH-I P.P.-II BATCH-II P.COGE-I				C	P.P.-II	P.COL-I	POC-III (T)
FRI	BATCH-I MC-I BATCH-II PCOL-I				H	MC-I	P.COL-I	P.COGE-I (T)
SAT	BATCH-I P.COGE-I BATCH-II P..P-II					P.COL-I	P.P.-II (T)	MC-I

Subject Name	Faculty Name	Designation
Pharmaceutical Organic Chemistry-III	G. Swapna/ K.Usha	Associate/Assistant Professor
Pharmaceutics-I	D. Balu/ Ashokavarthi	Assistant Professors
Pharmacology-I	A. Shruthi	Assistant Professor
Pharmacognosy And Phytochemistry-I	B. Soujanya/ V. Kavitha	Assistant Professors
Medicinal chemistry-I	A.Anil kumar	Assistant Professors
Medicinal chemistry-I Lab	K.Sandhya	
Physical Pharmaceutics-IIILab	D. Balu	Assistant Professors
Pharmacology-I Lab	A. Shruthi/B.Suresh	Assistant Professorssss
Pharmacognosy And Phytochemistry-I Lab	B. Soujanya/ V. Kavitha	Assistant Professor
Gender Sensitization Lab	B. Laxmi Kantharao	Assistant Professor
Sports	M.Rajashekar	PD

M.R.Kish  
HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist., Hyderabad - 501 512

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

**B. Pharm III-II SEM (SEC-A)**

**W.E. F: 13.02.23**

**COLLEGE TIMINGS: 09.00AM –03.50PM**

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I MC-III BATCH-II LIBRARY/SPORTS			MC-III	L	HDT	BPPK	P.COL-III
TUE	BATCH-I LIBRARY/SPORTS BATCH-II MC-III			MC-III	U	BIOTECH	P.COL-II (UA)	HDT
WED	BATCH-I P.COL-III BATCH-II LIBRARY/SPORTS			BIOTECH (T)	N	BPPK	HDT	P.COL-III (T)
THU	BATCH-I LIBRARY/SPORTS BATCH-II P.COL-III			P.COL-III	C	LIBRARY	HVE	BPPK
FRI	BATCH-I LIBRARY/SPORTS BATCH-II HDT			LIBRARY	H	BIOTECH	M.C-III (T)	BPPK (T)
SAT	BATCH-I HDT BATCH-II LIBRARY/SPORTS			BIOTECH		M.C-III	P.COL-III	HDT (T)

SUBJECT NAME	FACULTY NAME	DESIGNATION
Medicinal Chemistry - III	S. Swathi	Assistant Professor
Pharmacology - III	A.Shruthi	Assistant Professor
Herbal Drug Technology	N. Saritha/R.Ashok Kumar	Assistant Professors
Biopharmaceutics And Pharmacokinetics	R. Ashok Kumar	Associate Professor
Pharmaceutical Biotechnology	A. Shailaja/K.Usha	Assistant Professors
Medicinal Chemistry - III Lab	S. Swathi/K.Shailaja	Assistant Professors
Pharmacology - III Lab	P. Nagaraju	Assistant Professor
Herbal Drug Technology Lab	N. Saritha/R.Ashok Kumar	Assistant Professors
Biopharmaceutics And Pharmacokinetics Lab	R. Ashok Kumar/Balasubramanyam	Assistant Professors
Human Values And Professional Ethics	B. Laxmi Kantharao	Assistant Professor
Sports	M. Rajashekar	PD

MR. Kishu  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

**B. Pharm III-II SEM (SEC-B)**

**W.E. F: 13.02.23**

**COLLEGE TIMINGS: 09.00AM –03.50PM**

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I LIBRARY/SPORTS BATCH-II MC-III			BPPK		P.COL-III	MC-III	HDT
TUE	BATCH-I MC-III BATCH-II LIBRARY/SPORTS			P.COL-II (UA) HDT		HDT	MC-III	BIOTECH
WED	BATCH-I LIBRARY/SPORTS BATCH-II P.COL-III			HDT		P.COL-III (T)	BIOTECH (T)	BPPK
THU	BATCH-I P.COL-III BATCH-II LIBRARY/SPORTS			HVE		BPPK	P.COL-III	LIBRARY
FRI	BATCH-I HDT BATCH-II LIBRARY/SPORTS			M.C-III (T)		BPPK (T)	LIBRARY	BIOTECH
SAT	BATCH-I LIBRARY/SPORTS BATCH-II HDT			P.COL-III		HDT (T)	BIOTECH	M.C-III

SUBJECT NAME	FACULTY NAME	DESIGNATION
Medicinal Chemistry - III	S. Swathi	Assistant Professor
Pharmacology - III	S. Mahender	Assistant Professor
Herbal Drug Technology	N. Saritha/R.Ashok Kumar	Assistant Professor
Biopharmaceutics And Pharmacokinetics	R. Ashok Kumar/Umarani	Associate Professor
Pharmaceutical Biotechnology	A. Shailaja/K.Usha	Assistant Professor
Medicinal Chemistry - III Lab	S. Swathi	Assistant Professor
Pharmacology – III Lab	S. Mahender/A.Shailaja	Assistant Professor
Herbal Drug Technology Lab	N. Saritha/R.Ashok Kumar	Assistant Professor
Biopharmaceutics And Pharmacokinetics Lab	R. Ashok Kumar/Balasubramanyam	Assistant Professor
Human Values And Professional Ethics	B. Laxmi Kantharao	Assistant Professor
Sports	M. Rajashekar	Pd

*M.R.Kish*  
HOD



*[Signature]*  
PRINCIPAL

PRINCIPAL

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm IV-II SEM (SEC-A)

W.E. F.27.03.23

COLLEGE TIMINGS: 09.00AM –03.50PM

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	PJ	EX PCOL	BS&RM	EX PCOL	L U N C H	PROJECT WORK	CS	
TUE	SPP	BS&RM	LIBRARY	BS&RM		PROJECT WORK	CS	
WED	SPP	EX PCOL	PJ	EX PCOL		CS	PROJECT WORK	
THU	EX.P.COL	SPP	PJ	BS&RM		BS&RM	PROJECT WORK	
FRI	SPP	PJ	EX PCOL	BS&RM		SEMINARS/PROJECT WORK/SPORTS		
SAT	PJ	SPP	EX PCOL	BS&RM		SEMINARS/PROJECT WORK/SPORTS		

SUBJECT NAME	FACULTY NAME	DESIGNATION
Biostatistics And Research Methodology	K. Dileep Kumar/V.Ganesh	Assistant Professors
Social And Preventive Pharmacy	Balasubramanyam/Umarani	Assistant Professors
Pharmaceutical Jurispudance	B. Suresh/V.Ganesh	Assistant Professors
Experimental Pharmacology	K. Sandhya/ K.Madhuri	Associate Professors

M.R.Kish  
HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

B. Pharm IV-II SEM (SEC-B)

W.E. F.27.03.23

COLLEGE TIMINGS: 09.00AM -03.50PM

DAYS	9.30AM-10.20AM	10.20AM - 11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	BATCH-I LIBRARY/SPORTS BATCH-II MC-III			BPPK		P.COL-III	MC-III	HDT
TUE	BATCH-I MC-III BATCH-II LIBRARY/SPORTS			P.COL-II		HDT	MC-III	BIOTECH
WED	BATCH-I LIBRARY/SPORTS BATCH-II P.COL-III			IIDT		P.COL-III (T)	BIOTECH (T)	BPPK
THU	BATCH-I P.COL-III BATCH-II LIBRARY/SPORTS			HVE		BPPK	P.COL-III	LIBRARY
FRI	BATCH-I HDT BATCH-II LIBRARY/SPORTS			M.C-III (T)		BPPK (T)	LIBRARY	BIOTECH
SAT	BATCH-I LIBRARY/SPORTS BATCH-II HDT			P.COL-III		HDT (T)	BIOTECH	M.C-III

SUBJECT NAME	FACULTY NAME	DESIGNATION
Biostatistics And Research Methodology	K. Dileep Kumar/V.Ganesh	Assistant Professors/ Assistant Professor
Social And Preventive Pharmacy	Balasubramanyam/Umarani	Assistant Professors/ Assistant Professor
Pharmaceutical Jurispudance	B. Suresh/V.Ganesh	Assistant Professors/ Assistant Professor
Experimental Pharmacology	K. Sandhya/K.Madhuri	Associate Professors/ Assistant Professor

M.R. Kish  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACICE

### A.Y 2022-23 TIME TABLE

PHARM.D I YEAR

W.E.F: 28.11.22

COLLEGE TIMINGS:9:30AM-3:50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	B.CHEM.	HAP	POC	P.CEU (T)	L U N C H	PIC		
TUE	PIC	RM	POC (T)	TEST		LIBRARY/SPORTS		
WED	HAP	POC	B.CHEM. (T)	PIC (T)		POC		
THU	POC	RM/RB	P. CEU	PIC		HAP		
FRI	B.CHEM.	RM/RB	P. CEU	B. CHEM.		B.CHEM.		
SAT	HAP	RM/RB	TEST	HAP (T)		P.CEU.		

Subject name	Faculty name	Designation
Human Anatomy And Physiology	P. Swathi	Assistant Professor
Pharmaceutics	I. Swathi	Assistant Professor
Medicinal Biochemistry	Dr. Md. Abdul Azeem	Associate Professor
Pharmaceutical Organic Chemistry	T. Mahender	Assistant Professor
Pharmaceutical Inorganic Chemistry	Dr. Ayesha Binth Saleh	Assistant Professor
Remedial Mathematics/ Biology	K. Vimala	Assistant Professor
Human Anatomy And Physiology Lab	P. Swathi	Assistant Professor
Pharmaceutics Lab	I. Swathi	Assistant Professor
Medicinal Biochemistry Lab	Dr. Md. Abdul Azeem	Associate Professor
Pharmaceutical Organic Chemistry Lab	T. Mahender	Assistant Professor
Pharmaceutical Inorganic Chemistry-Lab	Dr. Ayesha Binth Saleh	Assistant Professor

*Margula.B*  
HOD



*[Signature]*  
PRINCIPAL

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACTICE

### A.Y 2022-23 TIME TABLE

PHARM.D II YEAR

W.E.F: 28.11.22

COLLEGE TIMINGS:9:30AM-3:50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.5PM-1.20PM	1.20P.M-2.10PM	2.10P M-3.00P M	3.00PM - 3.50PM
MON	P.COL-I	CP	P.PHY.	P.THER.-I	L U N C H	LIBRARY/SPORTS		
TUE	P.THER.-I	MICRO	P.PHY	LIBRARY		SEMINARS	CP	
WED	P.PHY.	MICRO	P.COL-I	MICRO		MICRO		
THU	P.COL-I	LIBRARY	P.COG&PHYTO	P.COG&PHYTO		P.COG&PHYTO.		
FRI	CP	P.PHY	P.THER.-I(T)	P.COL-I(T)		SEMINARS		
SAT	MICRO ( BS)	P.THER.-I	P.THER.-ILAB(HOSPITALVISIT)			P.THER.-ILAB (HOSPITAL VISIT)		

Subject Name	Faculty Name	Designation
Pathophysiology	Dr. V. Anudeep	Assistant Professor
Pharmaceutical Microbiology	Dr. Ravinayak	Assistant Professor
Pharmacognosy & Phytopharmaceuticals	P.V. Pavankumar	Assistant Professor
Pharmacology-I	Dr. Ayesha Binth Saleh	Assistant Professor
Community Pharmacy	Dr. P. Swathi	Assistant Professor
Pharmacotherapeutics-I	Dr. Evangileen	Assistant Professor
Pharmaceutical Microbiology -Lab	Dr. Ravinayak	Assistant Professor
Pharmacognosy & Phytopharmaceuticals-Lab	P.V. Pavankumar	Assistant Professor
Pharmacotherapeutics-I-Lab	Dr. Evangileen	Assistant Professor

  
HOD



  
PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACTICE

### A.Y 2022-23 TIME TABLE

PHARM.D III YEAR

W.E.F: 28.11.22

COLLEGE TIMINGS:9:30AM-3:50PM

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	P.A      LAB			P.A	L  U  N  C  H	M.C	P.J	SEMINARS(NS)
TUE	M.C      LAB			P.THER.–II		P.F (T)	P.THER. –II	P.COL-II
WED	P.F LAB			P.THER.–II		M.C (T)	P.COL-II	P.A
THU	P.A	P.F	P. THER.-II LAB (HOSPITALVIST)			P.THER.-II LAB(HOSPITALVISIT )		
FRI	P.COL-II    LAB			M.C		P.J	P.THER.II (T)	P.COL-II (T)
SAT	P.F	P.J	LIBRARYSPORTS			M.C	P.COL-II	P.A(T)

SUBJECTNAME	FACULTYNAME	DESIGNATION
Pharmacology-II	Dr. Ayesha Binth Saleh	Assistant Professor
Pharmaceutical Analysis	Dr. V.Anudeep	Assistant Professor
Pharmacotherapeutics-II	Dr. Evangileen	Assistant Professor
Pharmaceutical Jurisprudence	Dr. Ravinayak	Assistant Professor
Medicinal Chemistry	T. Mahender	Assistant Professor
Pharmaceutical Formulations	P.V. Pavankumar/ I.Swathi	Assistant Professor
Pharmacology-II	Dr. Ayesha Binth Saleh	Assistant Professor
Pharmaceutical Analysis-Lab	Dr. V.Anudeep	Assistant Professor
Pharmacotherapeutics-II-Lab	Dr. Evangileen	Assistant Professor
Medicinal Chemistry-Lab	T. Mahender	Assistant Professor
Pharmaceutical Formulations-Lab	P.V. Pavankumar/ I.Swathi	Assistant Professor

HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACTICE

### A.Y 2022-23 TIME TABLE

PHARM.D IV YEAR

W.E.F: 28.11.22

COLLEGE TIMINGS:9:30AM-3:50PM

DAY \ S	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	CT	B&RM	P.THER-III	HP	L U N C H	BPK (T)	TEST	CP
TUE	BPK	P.THER-III (T)	CP	TEST		B&RM	HP(T)	CT
WED	P.THER-III	SEMINAR				HOSPITALVISIT(P.THER-III)		
THU	P.THER-III	HP	HP	CP		LIBRARY/SPORTS		
FRI	CP(T)	HOSPITALVISIT				HOSPITALVISIT		
SAT	B&RM	BPK				BPK	TEST	CT

SUBJECTNAME	FACULTYNAME	DESIGNATION
Pharmacotherapeutics-III	Dr . V. Anudeep	Assistant Professor
Hospital pharmacy	Dr Ravinayak	Assistant Professor
Clinical pharmacy	Dr . MD.Abdul Azeem	Associate Professor
Biostatistics and Research methodology	Dr .MD.Aleemuddin/ K.Vimala	Assistant Professor
Biopharmaceutics and pharmacokinetics	T. Mahender	Assistant Professor
Clinical toxicology	P. Swathi patel	Assistant Professor
Pharmacotherapeutics-III Lab	Dr . V. Anudeep	Assistant Professor
Hospital pharmacy Lab	Dr Ravinayak	Assistant Professor
Clinical pharmacy Lab	Dr . MD.Abdul Azeem	Associate Professor
Biopharmaceutics and pharmacokinetics Lab	T. Mahender	Assistant Professor



HOD





PRINCIPAL

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



## DEPARTMENT OF PHARMACY PRACTICE

### A.Y 2022-23 TIME TABLE

PHARM.D V YEAR

W.E.F: 28.11.22

COLLEGE TIMINGS:9:30AM-3:50PM

DAY	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	CR	P&PE	CPK&PDM	TEST	L  U  N  C  H	P&PE	SEMINAR	CR
TUE	CR	SEMINAR				CPK&PDM	P&PE	TEST
WED	HOSPITALVISIT					HOSPITALVISIT		
THU	CPK&PDM	CR	P&PE	CLERKSHIP		HOSPITALVISIT		
FRI	HOSPITALVISIT					HOSPITALVISIT		
SAT	HOSPITALVISIT					HOSPITALVISIT		

SUBJECTNAME	FACULTYNAME	DESIGNATION
Clinical Research	P. SWATHI	Assistant Professor
Pharmaco Epidemiology and Pharmaco Economics	Dr. EVANGILEEN	Assistant Professor
Clinical pharmacokinetics & Pharmacotherapeutic drug Monitoring	Dr. V. ANUDEEP	Assistant Professor
Clerkship*	Dr.. RAVINAYAK	Assistant Professor
Project work(six months)	Dr. V.ANUDEEP/ Dr. EVANGILEEN/P.SWATHI	Assistant Professor

HOD



PRINCIPAL  
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## DEPARTMENT OF PHARMACY PRACTICE

### A.Y 2022-23 TIME TABLE

PHARM.D VI YEAR

W.E.F: 28.11.22

COLLEGE TIMINGS:9:30AM-3:50PM

DAY	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	CARDIOLOGY	NEPHROLOGY	NEUROLOGY	UROLOGY	L U N C H	CRITICAL CARE	PULMONORY	CASEPRESENTATION
TUE	PULMONORY	CRITICAL CARE	UROLOGY	NEPHROLOGY		NEUROLOGY	CARDIOLOGY	CASEPRESENTATION
WED	CRITICAL CARE	PULMONORY	NEPHROLOGY	CARDIOLOGY		UROLOGY	NEUROLOGY	CASEPRESENTATION
THU	UROLOGY	NEUROLOGY	PULMONORY	CRITICAL CARE		NEPHROLOGY	CARDIOLOGY	CASEPRESENTATION
FRI	NEUROLOGY	CRITICAL CARE	UROLOGY	PULMONORY		CARDIOLOGY	NEPHROLOGY	CASEPRESENTATION
SAT	CARDIOLOGY	NEPHROLOGY	CRITICAL CARE	UROLOGY		PULMONORY	NEUROLOGY	CASEPRESENTATION

Monday	Dr. V.Anudeep/ Md. Aleemuddin	Assistant Professor/ Assistant Professor
Tuesday	Dr. Ravinayak/ Md. Aleemuddin	Assistant Professor/ Assistant Professor
Wednesday	Dr. .Evangileen/ Md. Aleemuddin	Assistant Professor/ Assistant Professor
Thursday	Dr. Md.A. Azeem/	Associate Professor
Friday	Dr. M.Swathi/ Md. Aleemuddin	Assistant Professor/ Assistant Professor
Saturday	Dr. Ayesha Binth Saleh	Assistant Professor/ Assistant Professor

HOD



PRINCIPAL

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Committed to Excellence in Technical Education



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M. pharm I-I SEM P.ANALYSIS W.E. F: 26.10.22

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:50PM	12:50PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	MPAT LAB				LUNCH	APA	PV	PFA(T)
TUE	MPAT (T)	PFA	AC-1			MPAT	APA	PV
WED	APA (T)	TEST	RM&IPR	TEST		LIBRARY	SEMINAR	
THU	PFA LAB					MPAT	PFA	RM&IPR
FRI	SPORTS					MPAT	SEMINAR	
SAT	PFA	APA	TEST	PV(T)		LIBRARY	SEMINAR	

SUBJECT NAME	FACULTY NAME	DESIGNATION
MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES	DR. NIHAR RANJAN DAS	PROFESSOR
PHARMACEUTICAL FOOD ANALYSIS	DR.G. SAI KIRAN	PROFESSOR
ADVANCED PHARMACEUTICAL ANALYSIS	T.MADHRI	ASSOCIATE PROFESSOR
PHARMACEUTICAL VALIDATION	DR. VISHNU SRAVAN BOLLU	PROFESSOR
RESEARCH METHODOLOGY & IPR	DR. K.BALAJI/G.SAI KIRAN	PROFESSOR/PROFESSOR
MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES LAB	DR. NIHAR RANJAN DAS	PROFESSOR
PHARMACEUTICAL FOOD ANALYSIS LAB	DR.G. SAI KIRAN	PROFESSOR
AUDIT COURSE-1	DR.B.MANJULA/ DR.NIHAR RANJAN DAS	ASSOCIATE PROFESSOR/ PROFESSOR
SEMINAR & ASSIGNMENT	DR. M.RAMAKRISHNA	PROFESSOR

M.R. King  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M.pharm I-I SEM P.CEUTICS

W.E.F: 26.10.22

COLLEGE TIMINGS: 09.30AM –03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:50PM	12:50PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	MP-1 LAB				LUNCH	APP	PV	ABPPK (T)
TUE	MP-1 (T)	PFA	AC-1			MPAT	APP	PV
WED	APP (T)	TEST	RM&IPR	TEST		LIBRARY	SEMINAR	
THU	ABPPK LAB					MP-1	ABPPK	RM&IPR
FRI	SPORTS					MP-1	SEMINAR	
SAT	ABPPK	APP	TEST	PV(T)		LIBRARY	SEMINAR	

SUBJECT NAME	FACULTY NAME	DESIGNATION
ADVANCED PHYSICAL PHARMACEUTICS	DR. VISHNU SRAVAN BOLLU	PROFESSOR
MODERN PHARMACEUTICS-1	DR. B.MANJULA	ASSOCIATE PROFESSOR
PHARMACEUTICAL VALIDATION	DR.M.RAMAKRISHNA	PROFESSOR
APPLIED BIOPHARMACEUTICS & PHARMACOKINETICS	P.LAVANYA	ASSOCIATE PROFESSOR
RESEARCH METHODOLOGY AND IPR	DR.K.BALAJI	PROFESSOR
AUDIT COURSE-1	T. MADHURI	ASSOCIATE PROFESSOR
SEMINAR & ASSIGNMENT	K.BALAJI/RAMAKRISHNA	PROFESSOR/ PROFESSOR

M.R.K. HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M).  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M. pharm II-I SEM P.ANALYSIS

W.E. F: 21.10.22 COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:30PM	12:30PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	LIBRARY			LUNCH	LIBRARY		CS	STT
TUE	DISSERTATIN WORK RVIEW-II				DISSERTATIN WORK RVIEW-II			
WED	DISSERTATIN WORK RVIEW-II				DISSERTATIN WORK RVIEW-II			
THU	LIBRARY	STT	CS		LIBRARY			
TUE	DISSERTATIN WORK RVIEW-II				CS	STT	LIBRARY	
SAT	DISSERTATIN WORK RVIEW-II				DISSERTATIN WORK RVIEW-II			

SUBJECT NAME	FACULTY NAME	DESIGNATION
SCALE UP AND TECHNOLOGY TRANSFER	DR. NIHAR RANJAN DAS	PROFESSOR
COSMETIC SCIENCE	DR. B.MANJULA	ASSOCIATE PROFESSOR
DISSERTATIN WORK RVIEW-II	DR. K.BALAJI DR.G.SAI KIRAN/ DR. RAMAKRISHNA DR.NIHAR RANJAN DAS DR. B. MANJULA DR. VISHNU SRAVAN BOLLU	PROFESSOR PROFESSOR PROFESSOR PROFESSOR/ PROFESSOR PROFESSOR PROFESSOR

M.R.Kish  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M.pharm II-I SEM P.CEUTICS

W.E. F: 21.10.22

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:30PM	12:30PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	LIBRARY			LUNCH	CS	STT	LIBRARY	
TUE	DISSERTATIN WORK RVIEW-II				DISSERTATIN WORK RVIEW-II			
WED	DISSERTATIN WORK RVIEW-II				DISSERTATIN WORK RVIEW-II			
THU	CS	STT	LIBRARY		LIBRARY			
TUE	DISSERTATIN WORK RVIEW-II				LIBRARY	CS	STT	
SAT	DISSERTATIN WORK RVIEW-II				DISSERTATIN WORK RVIEW-II			

SUBJECT NAME	FACULTY NAME	DESIGNATION
SCALE UP AND TECHNOLOGY TRANSFER	DR.G.SAI KIRAN	PROFESSOR
COSMETIC SCIENCE	DR.M.RAMAKRISHNA	PROFESSOR
DISSERTATIN WORK RIVIEW-II	DR. K.BALAJI DR.G.SAI KIRAN/ DR. RAMAKRISHNA DR.NIHAR RANJAN DAS DR. B. MANJULA DR. VISHNU SRAVAN BOLLU	PROFESSOR PROFESSOR PROFESSOR PROFESSOR PROFESSOR PROFESSOR

M.R.Kirish

HOD



PRINCIPAL

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

Gunthapally (V), Abdullapurmet (M), R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M. pharm I-II SEM P.ANALYSIS W.E. F: 27.03.23

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:50PM	12:50PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	AIA LAB				LUNCH	HC	NC	P.QC&QA
TUE	AIA	P.QC&QA	COI			AIA	HC	NC
WED	P.QC&QA	AIA	HC	TEST		NC	SEMINAR	
THU	P.QC&QA LAB					AIA	P.QC&QA	HC
FRI	SPORTS					AIA	SEMINAR	
SAT	P.QC&QA	HC	TEST	NC		COI	SEMINAR	

SUBJECT NAME	FACULTY NAME	DESIGNATION
ADVANCED INSTRUMENTAL ANALYSIS- I	DR.NIHAR RANJAN DAS	PROFESSOR
PHARMACEUTICAL QUALITY CONTROL & QUALITY ASSURANCE	DR.G.SAIKIRAN	PROFESSOR
HERBAL COSMETICS	DR.K.BALAJI	PROFESSOR
NUTRACEUTICALS	DR.M.RAMAKRISHNA	PROFESSOR
ADVANCED INSTRUMENTAL ANALYSIS I LAB	DR.NIHAR RANJAN DAS	PROFESSOR
PHARMACEUTICAL QUALITY CONTROL & QUALITY ASSURANCE LAB	DR.G.SAIKIRAN	PROFESSOR
MINI PROJECT	DR.K.BALAJI	PROFESSOR
AUDIT COURSE	DR. VISHNU SRAVAN BOLLU	PROFESSOR
SEMINAR & ASSIGNMENT	DR.B.MANJULA	ASSOCIATEPROFESSOR

M.R.Kish  
HOD



PRINCIPAL  
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M).  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M.pharm I-II SEM P.CEUTICS W.E. F:27.03.23

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:50PM	12:50PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	M.P-II LAB				LUNCH	HC	NC	ADDS
TUE	M.P-II	ADDS	COI			M.P-II	HC	NC
WED	ADDS	M.P-II	HC	TEST		NC	SEMINAR	
THU	ADDS LAB					M.P-II	ADDS	HC
FRI	SPORTS					M.P-II	SEMINAR	
SAT	ADDS	HC	TEST	NC		COI	SEMINAR	

SUBJECT NAME	FACULTY NAME	DESIGNATION
MODERN PHARMACEUTICS-II	Dr.B.MANJULA	ASSOCIATE PROFESSOR
ADVANCED DRUG DELIVERY SYSTEM	Dr. VISHNU SRAVAN BOLLU	PROFESSOR
HERBAL COSMETICS	Dr.K.BALAJI	PROFESSOR
NUTRACEUTICAL	Dr.M. RAMAKRISHNA	PROFESSOR
MODERN PHARMACEUTICS-II-LAB	Dr.B.MANJULA	ASSOCIATE PROFESSOR
ADVANCED DRUG DELIVERY SYSTEM-LAB	Dr. VISHNU SRAVAN BOLLU	PROFESSOR
MINI PROJECT	Dr.NIHAR RANJAN DAS	PROFESSOR
AUDIT COURSE-II	Dr.G.SAI KIRAN	PROFESSOR
SEMINAR & ASSIGNMENT	Dr.M.RAMAKRISHNA	PROFESSOR

M.R.kib  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M.pharm II-II SEM P.ANALYSIS

W.E. F:

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:30PM	12:30PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	DWR-III/DVV			LUNCH	DWR-III/DVV			
TUE	DWR-III/DVV				DWR-III/DVV			
WED	DWR-III/DVV				DWR-III/DVV			
THU	DWR-III/DVV				DWR-III/DVV			
FRI	DWR-III/DVV				DWR-III/DVV			
SAT	DWR-III/DVV				DWR-III/DVV			

SUBJECT NAME	FACULTY NAME	DESIGNATION
DWR-III/DVV	DR. K.BALAJI	PROFESSOR
	DR.G.SAI KIRAN/T.MADHURI	PROFESSOR/ASSOCIATE PROFESSOR
	DR. RAMAKRISHNA	PROFESSOR
	DR.NIHAR RANJAN DAS	PROFESSOR
	DR. B. MANJULA/P.LAVANYA	ASSOCIATET PROFESSORS
	DR. VISHNU SRAVAN BOLLU	PROFESSOR

M.R.King  
HOD



PRINCIPAL  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY

### A.Y 2022-23 TIME TABLE

M.pharm II-II SEM P.CEUTICS

W.E. F:28-11-

COLLEGE TIMINGS: 09.30AM -03.50PM

DAYS	9:30AM-10:20AM	10:20AM-11:10AM	11:10AM-12:00PM	12:00PM-12:30PM	12:30PM-1:20PM	1:20PM-2:10PM	2:10PM-3:00PM	3:00PM-3:50PM
MON	DWR-III/DVV			LUNCH	DWR-III/DVV			
TUE	DWR-III/DVV				DWR-III/DVV			
WED	DWR-III/DVV				DWR-III/DVV			
THU	DWR-III/DVV				DWR-III/DVV			
FRI	DWR-III/DVV				DWR-III/DVV			
SAT	DWR-III/DVV				DWR-III/DVV			

SUBJECT NAME	FACULTY NAME	DESIGNATION
DWR-III/DVV	DR. K.BALAJI	PROFESSOR
	DR.G.SAI KIRAN/T.MADHURI	PROFESSOR/ASSOCIATE PROFESSOR
	DR. RAMAKRISHNA	PROFESSOR
	DR.NIHAR RANJAN DAS	PROFESSOR
	DR. B. MANJULA/P.LAVANYA	ASSOCIATET PROFESSORS
	DR. VISHNU SRAVAN BOLLU	PROFESSOR

MR. Kish  
HOD



PRINCIPAL

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## COURSE FILE

SUBJECT: HOSPITAL PHARMACY  
ACADEMIC YEAR: 2022-2023

NAME OF THE FACULTY: Dr. RAVINAYAK  
DESIGNATION: ASSISTANT PROFESSOR  
DEPARTMENT: PHARM.D  
YEAR : IV YEAR



*Committed to Excellence in Technical Education*

  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## CourseFile Index

S. No.	ITEMDESCRIPTION
1	VISION AND MISSION
2	COURSE OUTCOMES
3	COURSE SYLLABUS
4	LESSON PLAN
5	ACADEMIC CALENDER
6	TIME TABLE
7	LECTURE NOTES
8	UNIVERSITY QUESTION PAPER
9	INTERNAL QUESTION PAPER
10	INTERNAL QUESTION PAPER WITH ANSWER KEY
11	ASSIGNMENT QUESTION PAPER
12	STUDENT ASSIGNMENT
13	RESULT
14	ATTAINMENT



*Committed to Excellence in Technical Education*

  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## COURSE FILE COURSE DESCRIPTION/COURSE INFORMATION SHEET

NAME OF THE DEPARTMENT: PHARM.D

COURSE TITLE	HOSPITAL PHARMACY			
COURSE CODE	PD402			
REGULATION	20GN		YEAR/SEMESTER	IV
COURSE STRUCTURE	LECTURES	TUTORIALS	PRACTICALS	CREDITS
	3	1	3	4
COURSE TEACHER	Dr.RAVINAYAK			
NO.OF HOURS ALLOTTED PER WEEK	LECTURES	TUTORIALS	PRACTICALS	
	3	1	3	

:

Committed to Excellence in Technical Education



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

3



## 1. VISION & MISSION OF THE INSTITUTION

VISION	TO DEVELOP HIGHLY SKILLED PROFESSIONALS WITH ETHICS AND HUMAN VALUES
MISSION	WE ARE COMMITTED TO PROVIDE A POSITIVE AND PROFESSIONAL LEARNING ENVIRONMENT WHERE ALL STUDENTS ARE INSPIRED TO STRIVE FOR EXCELLENCE IN ORDER TO ACHIEVE THEIR POTENTIAL AS DIGNIFIED AND COMPETENT PHARMACISTS, TECHNOLOGY INNOVATORS, MANAGERS AND LEADERS IN GLOBAL SOCIETY THROUGH A COHESIVE NETWORK THE PARENTS, STUDENTS, COLLEGE STAFF AND INDUSTRY.

## COURSE HANDOUT

- PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES (POs) & (PSOs)
- COURSE OUTCOMES (COs)
- DETAILED SYLLABUS

### Programme Outcomes (POs) and (PSOs)

**PO 1 Pharmacy Knowledge:** Provide high quality, evidence-based, patient-centered care in cooperation with patients, prescribers and members of the inter professional health care team

**PO 2 Practical Skill:** Demonstrate mastery and application of core knowledge and skills in relation to the evolving biomedical, clinical, epidemiological and social-behavioral sciences.

**PO 3 Professional Identity:** Evaluate practice and care, and promote continuous improvement in one's own patient care and pharmacy services

**PO 4 Problem Solving:** Demonstrate self-calibration skills and a commitment to the lifelong learning needed to provide high quality care



**PO 5 Communication:** Effectively utilize information, informatics and technology to optimize learning and patient care

**PO 6 Planning Ability:** Demonstrate effective interpersonal written and verbal skills, adapt to socioeconomic and cultural factors as well as situational applications

**PO 7 Leadership Skills & Team Work :** Demonstrate exemplary professional, ethical and legal behaviors, complying with all federal, state and local laws and regulations related to pharmacy practice

**PO 8 Life Long Learning:** Demonstrate awareness and responsiveness to the system of health care, effectively utilizing systems of care to provide cost-effective, optimal care

**PO9 Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social context. Demonstrate behavior that recognizes cultural and personal variability in values, communication and life styles.

**PO10 Pharmacist and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the profession.

**PO11 Environment and Society:** Understand the impact of professional pharmacy solutions in societal and environmental context and demonstrate the knowledge of, and need for sustainable development.

**PSO1:** Able to apply the knowledge gained during the course of the program in drug discovery and development, their safety and efficacy and current technologies in Pharmaceutical industry

**PSO 2:** Able to apply the knowledge of ethical and management principles required to work in a team as well as to lead a team.

**PSO3:** Able to do multidisciplinary jobs in the pharmaceutical industries and would be able to write effective project reports in multidisciplinary environment in the context of changing technologies.

---

*Committed to Excellence in Technical Education*



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (M), R.R. Dist. Telangana.



## Course outcomes(COs)

CO1:To know various drug distribution methods
CO2: Know the professional practice management skills ion hospital pharmacies
CO3: Provide unbiased drug information to the doctors
CO4:Know The Manufacturing Practices Of Various Formulations In Hospital Set up.



*Committed to Excellence in Technical Education*

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Detailed syllabus

TOPIC1	Hospital - its organization and functions
TOPIC2	Hospital pharmacy-organization and management a) Organizational structure-Staff, Infrastructure & work load statistics b) Management of materials and finance c) Roles & responsibilities of hospital pharmacist
TOPIC3	The Budget – Preparation and implementation
TOPIC4	Hospital drug policy a) Pharmacy and Therapeutic committee (PTC) b) Hospital formulary c) Hospital committees - Infection committee - Research and ethical committee d) developing therapeutic guidelines e) Hospital pharmacy communication - Newsletter
TOPIC5	Hospital pharmacy services a) Procurement & warehousing of drugs and Pharmaceuticals b) Inventory control Definition, various methods of Inventory Control ABC, VED, EOQ, Lead time, safety stock c) Drug distribution in the hospital i) Individual prescription method ii) Floor stock method iii) Unit dose drug distribution method d) Distribution of Narcotic and other controlled substances e) Central sterile supply services – Role of pharmacist
TOPIC6	Manufacture of Pharmaceutical preparations a) Sterile formulations – large and small volume parenteral b) Manufacture of Ointments, Liquids, and creams c) Manufacturing of Tablets, granules, capsules, and powders d) Total parenteral nutrition
TOPIC7	Continuing professional development programs Education and training
TOPIC8	Radio Pharmaceuticals – Handling and packaging
TOPIC9	Professional Relations and practices of hospital pharmacist

Committed to Excellence in Technical Education



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Text books (Theory)

- Practice Standards and Definitions - The Society of Hospital Pharmacists of Australia.
- Basic skills in interpreting laboratory data - Scott LT, American Society of Health System Pharmacists Inc.
- Biopharmaceutics and Applied Pharmacokinetics - Leon Shargel, Prentice Hall publication.
- A text book of Clinical Pharmacy Practice; Essential concepts and skills, Dr.G.Parthasarathietal, Orient OrientLangramPvt.Ltd. ISBN8125026

## References

- Australian drug information -Procedure manual. The Society of Hospital Pharmacists of Australia.
- Clinical Pharmacokinetics - Rowland and Tozer, Williams and Wilkins Publication.
- Pharmaceutical statistics. Practical and clinical applications. Sanford Bolton, Marcel Dekker, Inc.



*Committed to Excellence in Technical Education*

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## LecturePlan

S. No.	Topic	No of Lecture Hours	Teaching Learning Process
TOPIC 1			
1	Hospital - its organization and functions	4	PowerPoint Presentation
TOPIC 2			
4	Hospital pharmacy-organization and management a) Organizational structure-Staff, Infrastructure & work load statistics	3	PowerPoint Presentation
5	b) Management of materials and finance	2	PowerPoint Presentation
6	c) Roles & responsibilities of hospital pharmacist	2	Chalk & Board
TOPIC 3			
7	The Budget – Preparation and implementation	5	PowerPoint Presentation
TOPIC 4			
8	Hospital drug policy a) Pharmacy and Therapeutic committee (PTC)	3	PowerPoint Presentation
9	b) Hospital formulary	2	Chalk & Board
10	c) Hospital committees - Infection committee - Research and ethical committee	1	PowerPoint Presentation
11	d) developing therapeutic guidelines	1	PowerPoint Presentation
12	e) Hospital pharmacy communication - Newsletter	1	Chalk & Board
TOPIC 5			



Committed to Excellence in Technical Education

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES


(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



13	Hospital pharmacy services a) Procurement & warehousing of drugs and Pharmaceuticals	1	PowerPointPresentation
14	b) Inventory control                      Definition, various methods of Inventory Control    ABC, VED, EOQ, Lead time, safety stock	3	Chalk&Board
15	c) Drug distribution in the hospital            i) Individual prescription method    ii) Floor stock method    iii) Unit dose drug distribution method	2	Chalk&Board
16	d) Distribution of Narcotic and other controlled substances	1	
17	e) Central sterile supply services – Role of pharmacist	2	
TOPIC 6			
18	Manufacture of Pharmaceutical preparations a) Sterile formulations – large and small volume parenteral	3	PowerPoint Presentation
19	b) Manufacture of Ointments, Liquids, and creams	3	PowerPoint Presentation
20	c) Manufacturing of Tablets, granules, capsules, and powders    d) Total parenteral nutrition	5	Chalk&Board
TOPIC 7			
21	Continuing professional development programs Education and training	6	PowerPointPresentation
22	Radio Pharmaceuticals – Handling and packaging	7	PowerPoint Presentation
TOPIC 8			
23	Radio Pharmaceuticals – Handling and packaging	7	PowerPoint Presentation



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

TOPIC 9			
	Professional Relations and practices of hospital pharmacist	6	Chalk&Board



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.



## Evaluation scheme :

### Theory

Maximum Marks For Theory	Total
Examination	70
Sessional	30
Total	100

**COURSE OBJECTIVE:** Upon completion of the course, the student shall be able to –

- Know various drug distribution methods;
- Know the professional practice management skills in hospital pharmacies;
- Provide unbiased drug information to the doctors;
- Know the manufacturing practices of various formulations in hospital set up;
- Appreciate the practice based research methods; and
- Appreciate the stores management and inventory control.



  
**PRINCIPAL**  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## DEPARTMENT OF PHARMACY PRACTICE

### A.Y 2022-23 TIME TABLE

**PHARM.D IV YEAR**

**W.E.F: 28.11.22**

**COLLEGE TIMINGS:9:30AM-3:50PM**

DAYS	9.30AM-10.20AM	10.20AM-11.10AM	11.10AM-12.00PM	12.00AM-12.50PM	12.50PM-1.20PM	1.20P.M-2.10PM	2.10PM-3.00PM	3.00PM-3.50PM
MON	CT	B&RM	P.THER-III	HP	L U N C H	BPK (T)	TEST	CP
TUE	BPK	P.THER-III (T)	CP	TEST		B&RM	HP(T)	CT
WED	P.THER-III	SEMINAR				HOSPITALVISIT(P.THER-III)		
THU	P.THER-III	HP	HP	CP		LIBRARY/SPORTS		
FRI	CP(T)	HOSPITALVISIT				HOSPITALVISIT		
SAT	B&RM	BPK				BPK	TEST	CT

SUBJECTNAME	FACULTYNAME	DESIGNATION
Pharmacotherapeutics-III	Dr . V. Anudeep	Assistant Professor
Hospital pharmacy	Dr Ravinayak	Assistant Professor
Clinical pharmacy	Dr . MD.Abdul Azeem	Associate Professor
Biostatistics and Research methodology	Dr .MD.Aleemuddin/ K.Vimala	Assistant Professor
Biopharmaceutics and pharmacokinetics	T. Mahender	Assistant Professor
Clinical toxicology	P. Swathi patel	Assistant Professor
Pharmacotherapeutics-III Lab	Dr . V. Anudeep	Assistant Professor
Hospital pharmacy Lab	Dr Ravinayak	Assistant Professor
Clinical pharmacy Lab	Dr . MD.Abdul Azeem	Associate Professor
Biopharmaceutics and pharmacokinetics Lab	T. Mahender	Assistant Professor

*(Signature)*

**HOD**



*(Signature)*

**PRINCIPAL**

**PRINCIPAL**  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Avanthi Institute of Pharmaceutical  
Sciences  
Mid-1  
Assignment-1

Name : B. Saimanisha

Class : PharmD IV year

Roll no : 196NIT0002

Subject : Hospital pharmacy

Topic : pharmacy & Therapeutic Committee

Submitted to Dr. Ravinayak.

5/5



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

# Pharmacy And Therapeutic Committee

A large number of hospital patients receive drugs & medicines, essentially those belonging to the modern system of medicines popularly known as Allopathic system as major part of treatment for disease.

⇒ One of the method or mode of ensuring the proper rationallity in the use of drugs is that hospital organize & constitute the pharmacy & Therapeutic Committee.

# Def:- The Pharmacy & Therapeutic Committee is policy framing & recommending body to medical staff & administration of hospital on matters related to therapeutic use of drugs.

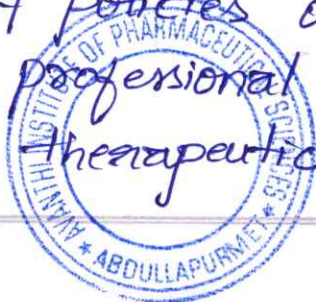
The Committee is composed of physicians, pharmacists & other health professionals selected with inclusions of medical staff.

# Objectives of the PTC:-

The PTC has 3 major roles to play They are;

- 1) Advisory 2) Educational 3) Drug safety & Adverse drug Monitoring.

⇒ Advisory:- The Committee recommends the adopted of policies or assists in formulation of broad professional policies regarding Evaluation, Selection & Therapeutic Use of drugs in the hospital.



PRINCIPAL  
AVANTHI INSTITUTE  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## ⇒ Drug Safety & Adverse drug Monitoring :-

The function is assigned to or taken up by the PTC it should be continued scheme of existing vigilance Drug Safety & Adverse drug monitoring with the advent & increase of each new class of therapeutic agents the scope, knowledge & responsibility of hospital pharmacist increase proportionately.

→ Now the safety aspects are more or less taken for granted by pharmacy, medical & nursing staff.

✱ Composition of PTC :- PTC consists of;

- i) At least 3 physicians from the medical staff
- ii) One pharmacist
- iii) A one nursing staff
- iv) A hospital administrator & Ex-officio member of the committee.

A physician may be appointed as chairman of PTC & pharmacist member as secretary of Committee.

There are approximately six meetings / year of the PTC.

→ PTC is appointed by Governing body / board of trustees.

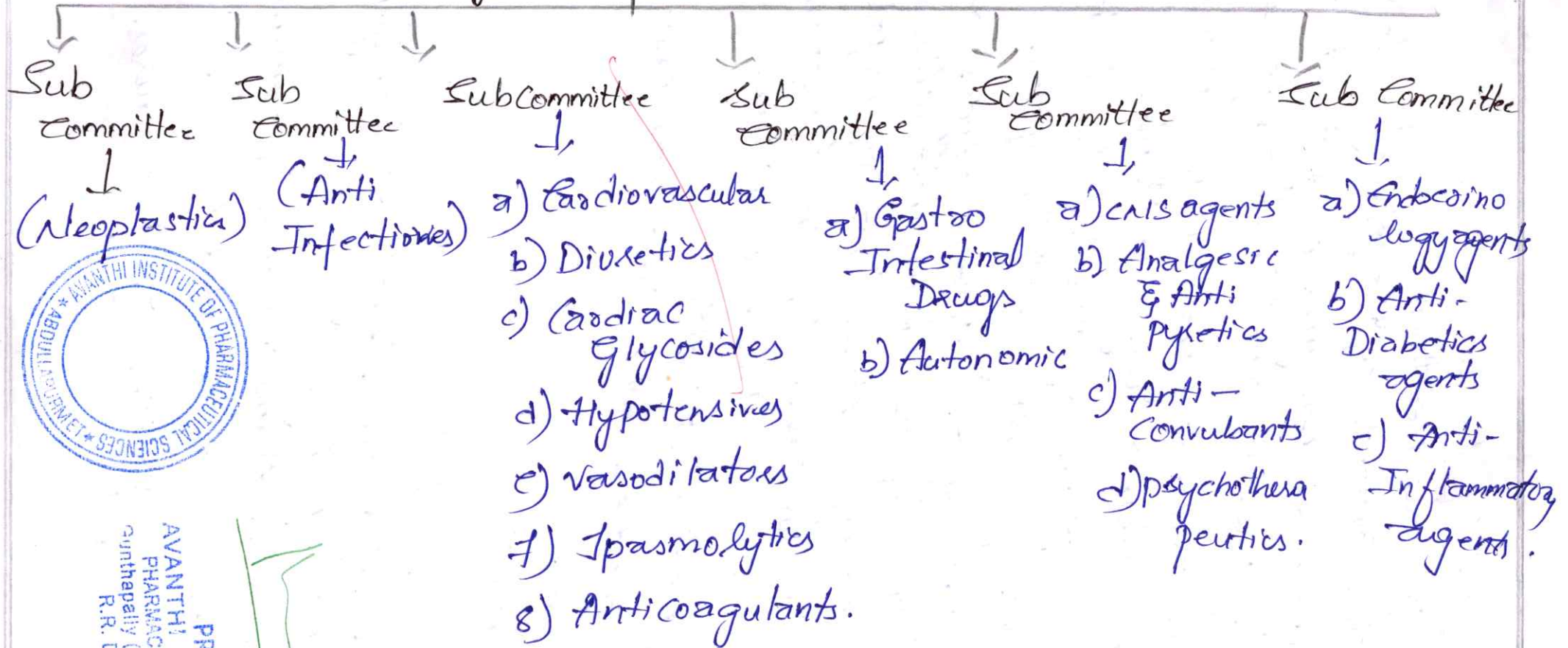
→ PTC is appointed by for better control over routine service provided by hospital.

There are few compositions of pharmacy & Therapeutic Committee.



✓  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# Pharmacy & Therapeutics Committee.



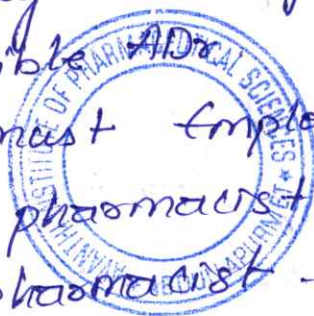
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abudulapurmet (M)  
R.R. Dist. Telangana.

- 4) Evaluating & providing drugs for formulary & providing for its periodic revision.
- 5) Managing Adverse drug reactions.
- 6) Managing medication errors.
- 7) promoting over-all health benefits.
- 8) periodic Education to medical & non-medical staff about current situations & issues.
- 9) Regulating the drug inventory of hospital pharmacy.
- 10) Specifically Controlling Narcotic Medication.
- 11) Control over OTC medications eg:- Acetaminophen.
- 12) Deciding drugs list of Emergency Operations & other department.
- 13) effective implementation of Drug policy in hospital.
- 14) Detect & prevent drug Interactions.

### Role of PTC in Drug-Safety;

⇒ Drug safety includes responsibility from dispensing drugs to drug administration then observe possible ADR.

- 1) The hospital must employ qualified atleast with diploma B-pharm degree chief pharmacist - diploma holder.
- 2) The hospital should not permit non-pharmacist personnel to dispense drugs & related materials.
- 3) A sufficient number of qualified personnel.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gandhinagar, Adabapet (M),  
R.R. Dist. Telangana.

# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

## ASSIGNMENT - 2

Name :- V. Swetha

class :- Pharm-D IV year

Roll no :- 196NIT0029

Subject :- Hospital pharmacy  
[mid - II]

Topic :- Manufacture of ointments,  
Liquids, creams.

Submitted to Dr Ravinayak



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# Manufacture of Ointments, Liquids, cream's.

## Manufacture of ointments :-

### ① Trituration method:-

- ⇒ It is mainly used for preparation of soft ointments in a small scale industry
- ⇒ It has mainly 2 methods:-
- ⇒ Ointment slab
- ⇒ Motor and pestle method.

#### Ointment slab / Levigation :-

finely powder the medicament and place it on a clean ointment tile



weigh required quantities of ointment base and keep on one different part of slab

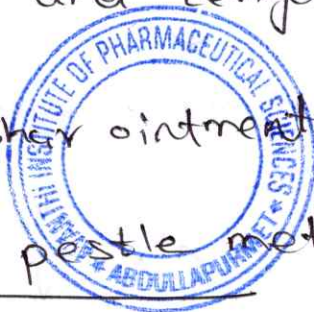


Take a portion of base of about 3 times volume of drug and levigate it with help of ointment.

Ex:- sulphur ointment.

### ② Motor and pestle method

This method is used for large quantities



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

### ⑤ chemical reaction:-

⇒ ointment is prepared between chemical reaction, medicament and one or more ingredient of the base.

### CREAMS:-

⇒ creams are viscous emulsion's of semisolid consistency, intended for external application to the skin or mucous membrane.

⇒ They are of ② types:-

① O/w type cream (aqueous cream)

② W/o type cream (oily cream)

oily creams consist a w/o type emulsifying agent.

⇒ ex:- wool fat, alcohol, fatty acids.

Aqueous creams consist of o/w type emulsifying agent

Aqueous creams consist of o/w type emulsifying agent

ex:- Emulsifying wax, Tweens, fatty acid ester.

preparations involve separating the formula components into two portions:-  
Liquid and Lipid.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

The raw materials used are:-

- vehicle - water, alcohol
- solubiliser - cyclodextrin
- Stabilizer - EDTA
- preservatives - parabens
- viscosity modifiers - Xanthan gum
- Buffer - citrate and Acetate buffer
- Isotonicity agents - Dextrose, gel.


Manufacturing:-

- All the required raw materials according to the master formula card were weighed and sifted to break large lumps.



- Required volume of vehicle is measured and transferred to stainless steel mixing tank.




  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahpurmet (M),  
R.R. Dist. Telangana.

pharmaceutical preparations for treatment of conditions such as rashes, skin irritation, stings; fungal infections etc. are normally supplied in the form of a cream or ointment as this provides an effective means of delivering area.

products can be either a water in oil, oil in water emulsion, consisting of waxes, emollients and lubricants dispersed in an oil phase and water phase containing emulsifying, stabilising and thickening agents, preservatives and in some cases, colorant.

Active ingredients are dispersed in either phase or added when the emulsion has been formed and allowed to cool.



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

**AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES**

**Gunthapally (V), Abdullapurmet (M), R.R.Dist**

**IV-Year II-Mid Internal Examination**

**Subject: HOSPITAL PHARMACY**


**Time: 2 hr**

**Marks: 30**

**Answer any Six Questions. Each question carries equal marks**

1. Define hospital. Write the different classifications of hospital.
2. Write the roles and responsibilities of hospital pharmacist both in-patient and out-patients.
3. Define budget. Explain the classification of various types of budget preparation.
4. a) Write about the objectives of material management.  
b) Describe the organisation and functions of hospital.
5. Write about the functions of hospital pharmacy. Set up of hospital pharmacy.
6. a) Define budget implementation. Advantages and disadvantages of budget.  
b) Explain in detail about different services and staff of hospital.
7. Write about the management of materials and finance.
8. a) Write the workload of hospital pharmacist based on number prescription flow.  
b) Explain about the 600 bedded hospital and its layout.



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
**Gunthapally (V), Abdullapurmet (M),**  
**R.R. Dist, Telangana.**

**AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES**

**Gunthapally (V), Abdullapurmet (M), R.R.Dist**

**IV-Year ■-Mid Internal Examination**

**Subject: HOSPITAL PHARMACY**


**Time: 2 hr**

**Marks: 30**

**Answer any Six Questions. Each question carries equal marks**

1. Write the constitution and functions of pharmacy and therapeutic committee.
2. Write a note on hospital pharmacy communication – newsletter.
3. Define Drug distribution. write about drug distribution system of in-patients and out-patient.
4. Write about the following committees;
  - a) Infection Committee    b) Research and Ethical committee
5. Write about the manufacturing methods of i) ointments ii) Granules.
6. Define Inventory Control. Mention different types of inventory control techniques. Explain ABC Analysis.
7. Definition of TPN. Explain procedure of TPN.
8. i) Write the difference between large volume and small volume parenterals  
ii) Developing therapeutic guidelines.



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M).  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by AICTE, Recognised by Govt. of T.S. & Affiliated to JNTU, Hyderabad)  
Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

## INTERNAL DISCRIPTIVE EXAM

Subject: Saimanisha

Date: 03/01/23

Rollno: 196NIT0002

Class: pharmD IV year

Subject: Hospital pharmacy

Invigilator Signature

Ans: different classifications of hospital:-

clinical basis

surgery based

Hospital classification based on

Miscellaneous type

System based

a) clinical based classification includes:-

a) Maternity hospital

mainly deals with the child birth, women care during pregnancy and lactation.

b) surgical based:-

It includes:- cardiology

cardiothoracic surgery

dental surgery

ENT

neurology

kidney surgery

Larynxopharyngeal related.

→ This surgical based hospitals mainly deals with the surgeries of

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

- 1) Ayurvedic hospitals → treatment according to Indian ancient science
- 2) Homeopathy hospitals → treatment according to German and Roman culture
- 3) Unani hospitals → treatment according to Arabic system of medicine
- 4) Naturopathy hospitals.

#### 4) Miscellaneous hospitals:-

- It includes accredited and non accredited hospitals
- Also categorized by bed size (50, 100, 150, 300, 500)

#### Functions of hospital:-

- 1) Hospital can provide better health care services towards patients
- 2) Hospital should maintain day utilization, day maintaining services day usage among the hospital.
- 3) Hospital should follow the proper ("pharmaceutical care services.")
- 4) Hospital maintain proper records of patients like health history, medical history, family history, etc.
- 5) Hospitals should follow NMC rules and guidelines.
- 6) Hospital by virtue they provide care services to patients.
- 7) Hospitals should maintain proper environment, sanitation etc.
- 8) Hospitals should be provide better treatment opportunities towards patients.
- 9) In hospitals the working staff should maintain liaison with patients and health care providers.
- 10) Hospital's maintain hygiene conditions, proper bed strength to meet the patient requirements.

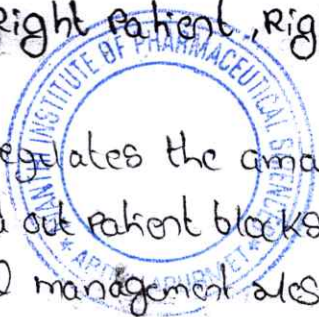
2 Ans:

## Hospital pharmacy :-

- Hospital pharmacy is defined as, it is a department in which the drugs are procured, preserved, stored, compounding, assayed, manufactured, dispensing, packing, distributed to both inpatients and outpatients. In presence of legally qualified pharmacist is generally known as hospital pharmacy. And also related to education and research.
- The 1st person to establish hospital pharmacy is Johnam Robert in colonial America Pennsylvania 1795.
- In India it was established by S.H. Merchant in K.G.M hospital Mumbai in 1974.

## Roles and responsibilities of hospital pharmacist :-

- 1) Hospital pharmacist should maintain liaison b/w patient and other health care providers.
- 2) Hospital pharmacist should monitor the dispensing of medicines to both inpatient and outpatients.
- 3) Hospital pharmacist should maintain records to note down information of patient's health condition, history of patient, family history.
- 4) Hospital pharmacist should monitor the drug adverse effects, drug interactions, side effects, and also give awareness to patients regarding their medication.
- 5) Hospital pharmacist by virtue of his profession maintain liability, motivate, awareness towards patient.
- 6) Hospital pharmacist by virtue of his trade and business, dispense medications towards right patient, right time, right dose, at right price.
- 7) Hospital pharmacist regulates the amount of medicines should be dispensed in patient and out patient blocks and record the rates of medicines according to hospital management rates.
- 8) Hospital pharmacist should strictly follow → at that particular



PRINCIPAL  
AVANTI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Kodadapermat (M),  
R.R. Dist. Telangana.

a) 3 Ans.

## Budget :-

→ It is mainly involved in hospital management, hospital expenditure medicine managements comparable and strategic plans, mainly for towards financial terms is known as budget.

Budget of mainly 2 types

- 1) Short term budget → duration of 2 yrs
- 2) Long term budget → duration of 5-10 yrs.

## Types & divisions of budget :-

- 1) Income budget / Revenue budget
  - 2) Expenditure budget
  - 3) Asking for capital investments
- } 3 types of budgets

### 1) Income budget / Revenue budget :-

→ Total cost of the budget which is involved for planning of hospital needs and demanding works.

Mainly it closely monitoring :-

- 1) Avg salary per prescription per day
- 2) Avg prescriptions per dispensing for 1 day
- 3) Prescription flow per day
- 4) Dispensing of medicines both in patients & out patients per day.
- 5) Prescription & patient cost per day

### 2) Expenditure budget :-

It mainly focus on the expenditure of the hospital during patient management and dispensing of medicines and other requirements which have need to hospital.

Ans.

## Hospital:-

Hospital is a complex organization and an institution which provides good health towards patients through a complicated but scientific and systemic approaches and trained education person or problems coming under modern medical teams.

→ Good health provided towards public by trained persons.

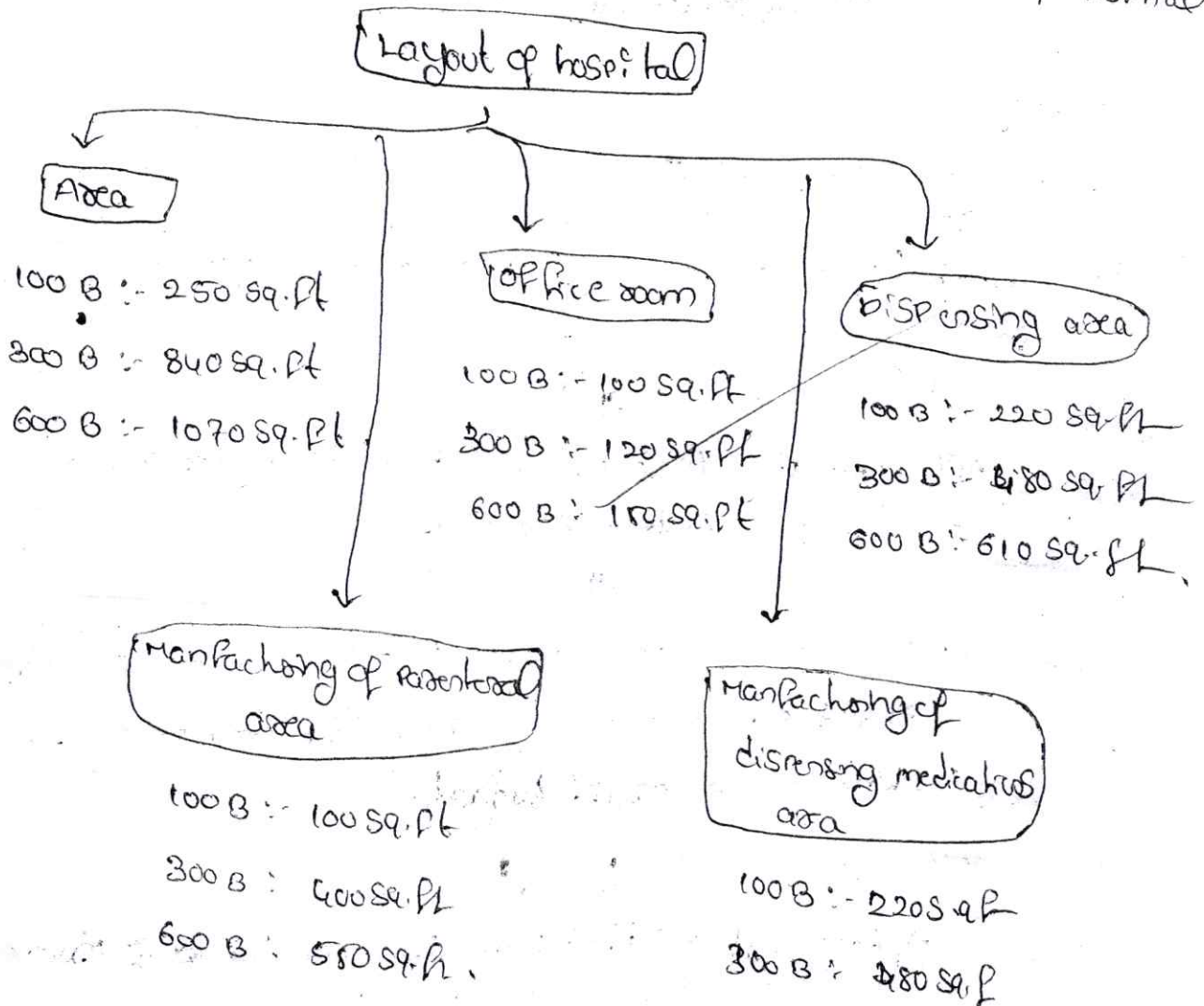
### \* Layout of a 600 bedded hospital:

→ Layout of the any hospital atleast requires minimum of 200 sq. ft area.

→ According to areas and their bed size hospitals are categorized into small hospital, medium hospital and large hospitals.

→ In 600 bedded hospital nearly 15 pharmacists are required.

→ Flow chart explains layout and bed size & square feet area of hospital.

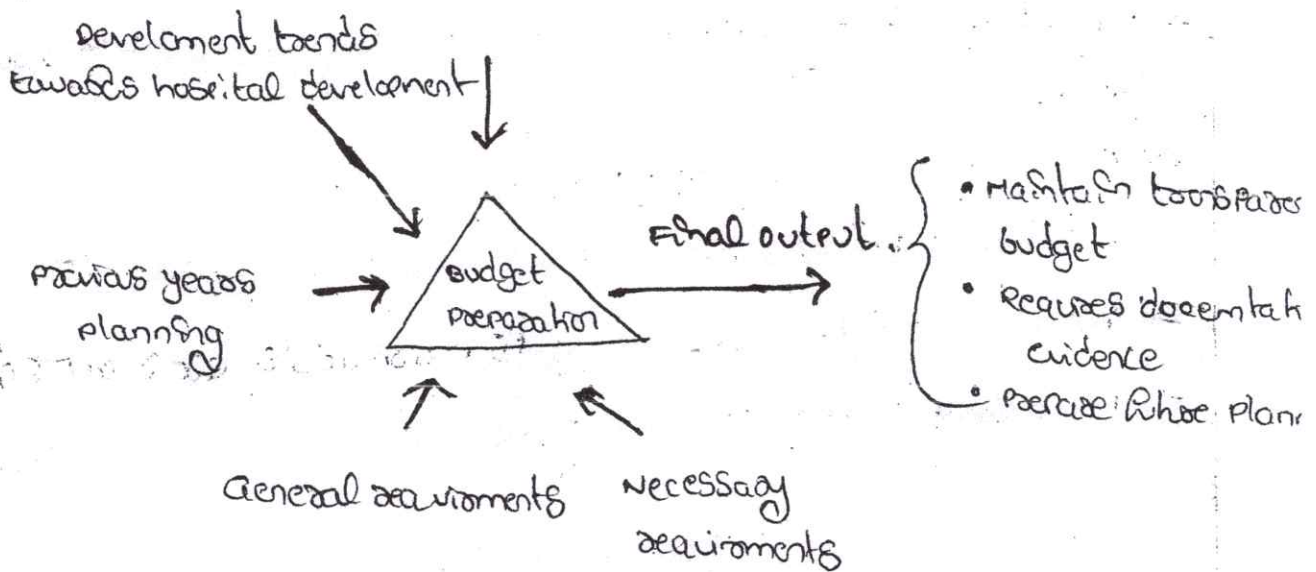


→ Asking for capital investments.

- Mainly maintaining both income budget and expenditure budget and maintain the budget by decreasing costs
- Also they should provide and they better equipments towards hospital & patients needs.

Budget Preparation :-

- External sources
- Internal sources



Mainly the following steps are involved in budget preparation:

preparation of quotation towards basic & necessary needs of hospital pharmacy by staff and other concerned officers.

↓  
After that they move proposal towards higher officials in order to discussion in both of directors

↓  
After they are also assigned to this quotation of budget, they should submit the budget in draft format is generally known as → draft budget.

↓  
After that all technical arrangements are & procedures are followed and make the...

## \* Disadvantages of budget preparation & implementation

- 1) It is very time taking process.
- 2) Both man power and system handling process are very lengthy and stress full works.
- 3) May be data will be transferred to good policies.
- 4) Data will be changed by reasons.
- 5) Budget expenses and costs, income may be changed either low and high by reasons.

3 Ans:

## Budget Implementation:-

⇒ Budget Implementation is defined as "act of carrying of the plans projects & developments according to the strategic plans which are implemented."

Budget Implementation by following steps:-

- 1) Planning & production of budget
- 2) Strategic plan based implementation
- 3) Management of the income sources
- 4) Maintaining the income expenditures.

## \* Management of materials & finance.

1) Management of materials & finance

By storage and procurement of the things they are maintained

By cost effective way

high expenditure



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by AICTE, Recognised by Govt. of T.S. & Affiliated to JNTU, Hyderabad)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

## INTERNAL DISCRIPTIVE EXAM

Subject: Hospital pharmacy

Date: 03/01/22

Invigilator Signature

### Importance of budget preparation & implementation :-

- 1) By preparing budget they know how much amount to be managed towards expenditure, income and asking for capital investments.
- 2) Also for income tax documentation, IT files etc.
- 3) By budget preparation they are also monitoring expenditure cost, income and profits.
- 4) By preparing budget they are also much aware of the expenditure cost, salaries, wages to staff, staff cost, administration of the hospital.

### Advantages of budget preparation & implementation :-

- They need information & documents needed for hospital management.
- They closely monitoring equipments acquired, hospital management in transparent manner.
- They planned future plans, projects etc for their growth and development.
- They should also documentation evidences for income taxes and

organization of 600 bedded hospital

# organization of 600 bedded hospital

Board of → directors (among the hospital administration)

Executive Area

Medical Area

resident doctors  
non resident doctors  
Associate doctors  
Honorable doctors

other non medical services

ambulance  
diagnostic services  
kitchen, laundry, beverages.

other staff area  
↓  
radiology  
nursing  
dispensing  
pharmacy

Surgery

orthopaedic surgery  
Laryngeal surgery  
ENT  
Dental surgery  
Plastic surgery  
Anaesthesia

Chief Medical Officer / Superintendent

Internal medicine  
Surgery  
Paediatrics  
Gynaecology  
Ophthalmology  
Dermatology  
Psychiatry  
Ear, nose & throat

(a) Functions of hospital pharmacist

- 1) Main function of hospital pharmacist is visit ward rounds along with doctors and collect the complete history of patient, medication history.
- 2) Hospital pharmacist should monitor the sterile dosage preparation their dosage and dispensing of medicines.
- 3) Hospital pharmacist regulates the medication supply towards in patients and out patients.
- 4) Hospital pharmacist create awareness to patients about their medication and usages, side effects.
- 5) Hospital pharmacist should observe the drug interaction, adverse effects and side effects.
- 6) Hospital pharmacist closely monitoring the ex tempore prescriptions, expiry dates of medicines.
- 7) Hospital pharmacist should maintain technical ethics during manufacturing of the dosage preparations.
- 8) Hospital pharmacist closely monitoring package of the preparation and their effect on effectiveness.
- 9) Hospital pharmacist play's an vital role to maintain the hospital drug policy.
- 10) Hospital pharmacist maintain liaison with public / patients & other health care providers.
- 11) Hospital pharmacist should give access to ~~poor~~ and other medical staff towards medicines are not giving ~~poor~~ codes.
- 12) Hospital pharmacist should maintain better pharmaceutical services.



# AVANTHI RESEARCH ACADEMY

(Approved by AICTE, Recognised by Govt. of T.S., & Affiliated to JNTU, Hyderabad)  
Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

## INTERNAL DISCRIPTIVE EXAM

NAME: B. Saimanisha

DATE: 03-01-23

ROLL No.: 19GNI1T0002

Subject: Hospital pharmacy

CLASS: Pharm.D. IV year SEM: —

SIGNATURE OF THE INVIGILATOR'S: Cpk.

SIGNATURE OF THE STUDENT: B. Saimanisha

TOTAL MARKS 

29 30
----------

jkf

6Ans. Inventory control:-

Inventory control is defined as maintaining the stock by companies in order to view of demand of patients and availability of the stock, to patients in minimum effective cost is known as inventory control.

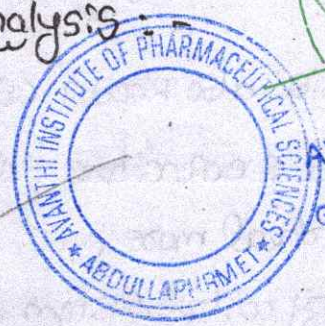
\* Different types of inventory control techniques:-

- 1) ABC (Always better control) analysis
- 2) VED (Vital, essential, desirable)
- 3) EOQ (Economic order quantity)
- 4) Lead time
- 5) Minimum stock level
- 6) Maximum stock level
- 7) Differential inventory control

Different types of inventory control techniques.

\* ABC (Always better control) analysis:-

- A → Always  
B → Better  
C → control } analysis



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

→ ABC analysis is one of the inventory control techniques which is the best one and providing minimum cost effective drugs to the patients.

→ ABC analysis categorized in 3 types.

A → high value drugs

→ In this analysis, they are categorized into percentage of items, and expenditure of the drugs.

category	% items	Expenditure
A	10-15%	70%
B	20-30%	20%
C	60-80%	10%

→ In this ABC analysis :-

category A :- contains less numbers of items but their cost expenditure will be more. Because of that drugs are vital drugs, and they are maintain at higher prices and environment.

category B :- it contains moderate items, and their cost of expenditure will be also moderate. They are regularly used drugs and they are targeted mainly regular-based usage patients.

category C :- it contains more no. of items and their cost of expenditure will be low. They are maintained at low cost and daily basis to dispense to patients. Mainly OTC drugs are fully vital role in this category.

→ In ABC analysis also known as "SIM (system inventory method)"

→ In order of cost & expenditure, ABC analysis follows a theory "vital few, trivial more".

→ In the inventory control system, ABC analysis is best method and widely used method for the minimum effective cost and more procurement of drugs, handling of drugs.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by AICTE, Recognised by Govt. of T.S. & Affiliated to JNTU, Hyderabad)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

## INTERNAL DISSCRIPTIVE EXAM

Subject: HP

Date: 03/01/23

Praveen  
Invigilator Signature

⇒ Management of materials and finance by inventory control methods

### Inventory control:

In this system of medicine distribution at low cost, low expenditure to the right person, right time, to right dose, right cost.

⇒ It is regulated by 3 methods:

1) ABC analysis

2) VED analysis

3) EOQ analysis

3 methods for managing of materials & finance in hospital pharmacy.

1) ABC analysis (Always better control): -

- | A   | B  | C  |
|---|--|--|
| 1) It covers 10% of total income                          | It covers 20% of total income                        | It covers 70% of total income            |
| 2) It requires 70% of expenditure                         | It requires 20% of total expenditure                 | It requires 70% of total expenditure     |
| 3) This one requires highly qualified staff to dispensing | 3) This one requires moderate / semi skilled persons | 3) This requires more people to dispense |

(crucial/very, essential, desirable).

"V" → If these items are not present in hospital the activity of hospital can't function.

"E" → If these items/drugs/medicines are not present slightly affect the hospital function, hospital will be run but quality of medicine services decrease.

"O" → If drugs are absent not affect the hospital function.

3) EOQ analysis:

$$EOQ = \sqrt{2PS/AQ}$$

By maintaining financial status of drugs by purchasing the drugs and dispensing.

## Manufacturing methods of ointments:

- 1) Tribulation method
- 2) Fusion method
- 3) chemical reaction method
- 4) emulsification method

} 4 methods for manufacturing of ointments.

### 1) Tribulation method:-

In this method, the ointment base is soft and medicament mixed thoroughly with ointment base by tribulation method.

→ Both ointment base and medicament taken on ointment slab along with ointment mixing knife they are mixed thoroughly.

Ex: - cetostearyl alcohol based ointment I.P 500 mg.

### 2) Fusion method:

In this method mainly, mixed based on their melting points.

→ High melting points ingredients are fused on china dish and then low melting point ingredients are added to mix properly and avoiding overheat of ingredients.

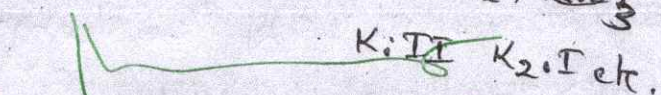
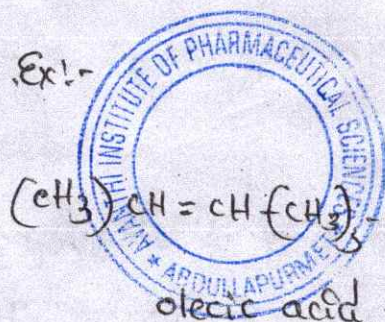
→ They are fused at a certain temperature range of 40°C to 80°C.

### 3) chemical reaction method:-

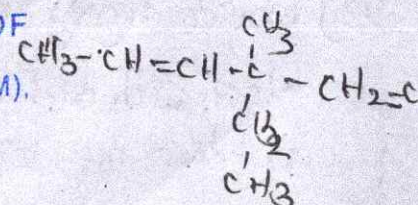
In this method ointments are manufactured by chemical reactions.

Mainly potassium iodides are used. like KI, KI<sub>2</sub>, ~~KI<sub>3</sub>~~ KI<sub>3</sub>.

Ex:-



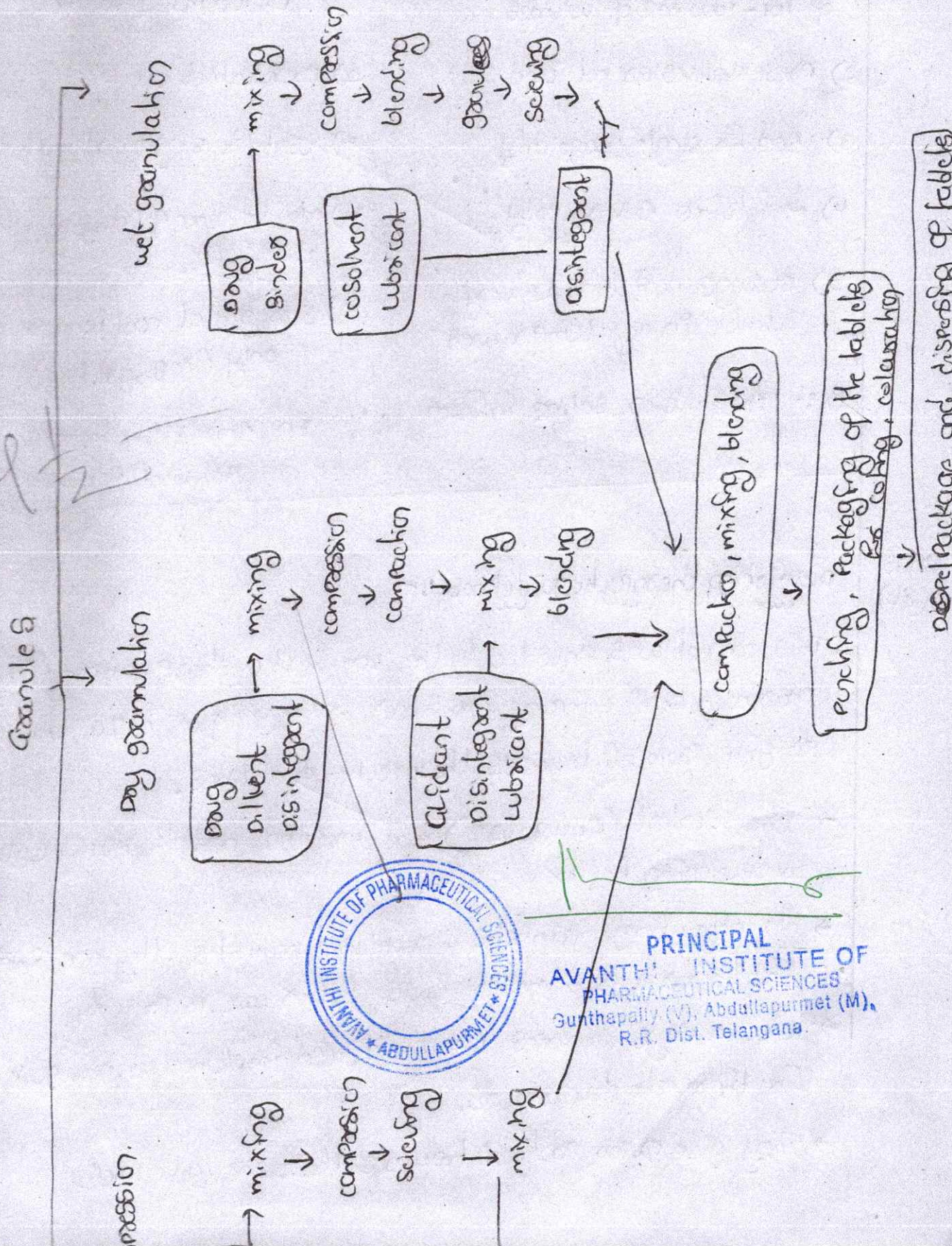
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



## 4) Emulsification method:

In this method all ingredients are mixed at a temperature of  $70^{\circ}\text{C}$ . At that temperature based on oil emulsion, water emulsion bases they are emulsified and prepares ointment.

## \* Manufacturing methods of granules:



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

→ PTC is defined as, it is an reforming body which give the suggestions to the doctors and other care professionals towards the drug safety doses and utilization.

→ PTC gives the certain guideliness to doctors, pharmacists & nurses and other medical administrators, on drug dose safety..

constitution of the PTC :-

The constitution of the PTC includes :-

- 1) Atleast of minimum 3 physicians
- 2) one pharmacist
- 3) one nurse from administration
- 4) one hospital administrator.

constitution of the PTC includes this members.

→ In this one of the physician becomes a chairman of the committee and remaining members are co-chairman's of the committee.

→ The role of secretary should taken by pharmacist in this committee, and Jo. pharmacists and remaining pharmacists acts as co-Secretary

→ The medical administrator play g a role of director to this committee as an ex-officio member.

3 physicians

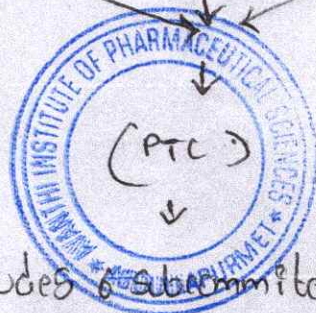
one is chairman  
co-chairman's

Medical administrator

Director

Pharmacist

Secretary  
Joint secretary



It includes 6 subcommittee's of PTC.

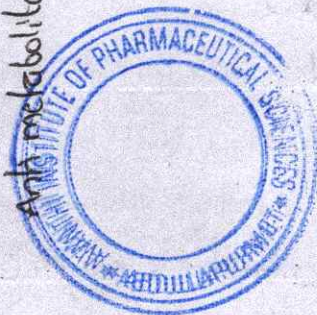
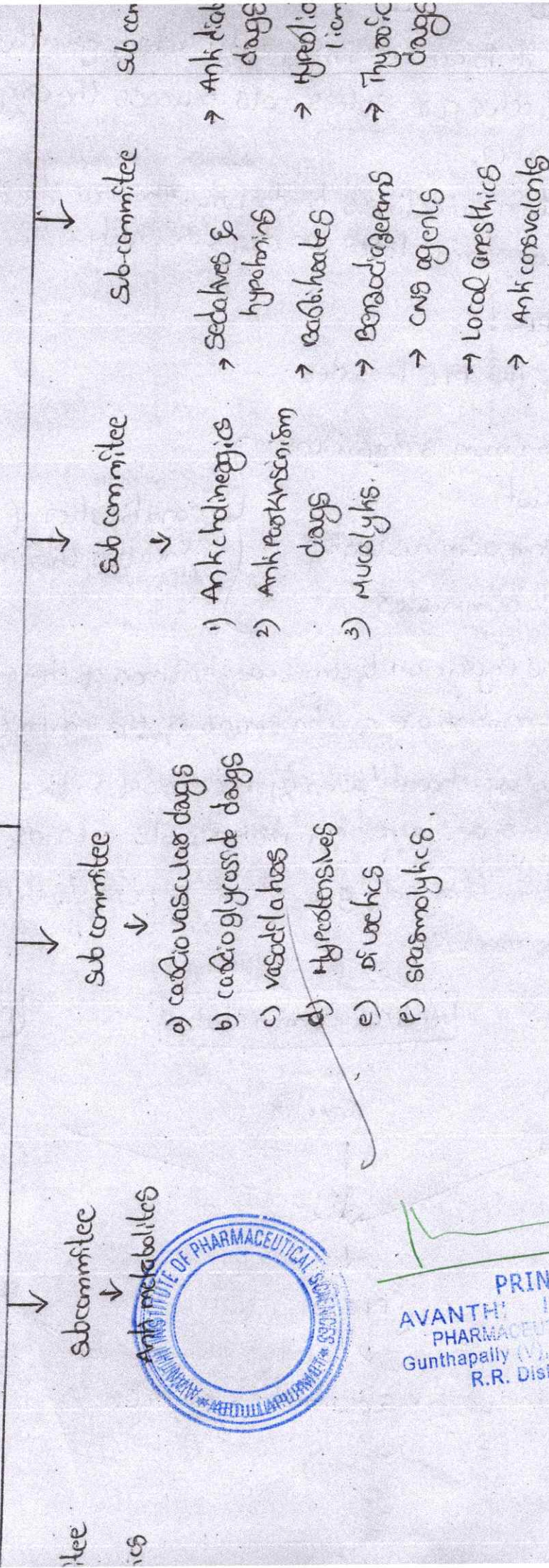
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

- 1) PTC generally regulates the committee members agenda & meetings held on every 6 months for reviewing agenda's.
- 2) PTC should give better directions of drug's to doctors to control overusage of drugs.
- 3) PTC should refer any ADR's, drug interactions found in treatment they refer to doctors to check out.
- 4) PTC regulates the doctors/physician's in order to follow their protocol's of drug handling not by doctor's own decisions.
- 5) This committee monitors the adverse effects, utilization & efficacy of the drugs.
- 6) PTC may reform any form of drug combination with proper evidences.
- 7) PTC provides better efficient drug towards patient, in order to decrease overusage of the ineffective drugs.
- 8) PTC provides and assess the medical staff (nurses & other staff) to give right doses at right time.
- 9) PTC regulates the physician while check prescription codes during dispensing of the drugs.
- 10) Therapeutic committees play an vital role in the monitoring the drug efficacy and utilization with low side effects.
- 11) Many hospital's having their own PTC committee they do own reforms and suggestions to physicians.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# Pharmaceutical Subcommittees



PRINCIPAL  
 AVANTHI INSTITUTE OF  
 PHARMACEUTICAL SCIENCES  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

5. total parenteral nutrition (TPN):

It is defined as, TPN is an infusion mainly given to patients/individuals containing all vital required vitamins to the patient.

(or)

It is an infusion of all required vitamins, nutrients towards patient requirement, they infused TPN.

→ TPN mainly given in conditions of any GI disturbances or patient in coma or unable to take food orally.

TPN is of 2 types:-

- 1) centrally or total parenteral nutrition (TPN)
- 2) Peripheral parenteral nutrition (PPN)

mainly TPN gives carb through central vein and infusion will be bypass the gastrointestinal tract.

Types of TPN:-

- 1) centrally admixtured parenteral nutrition
- 2) Fat Emulsion
- 3) Peripheral parenteral nutrition
- 4) Total parenteral nutrition

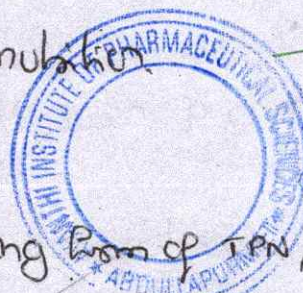
Procedure of the TPN:-

- 1) First of all check the giving form of TPN, PPN, fat emulsion etc.
- 2) once check the TPN solution now explain the process of TPN to the patient or patient relatives.
- 3) After explaining the process of TPN, now sterilize the area, admin hands, wearing gloves, and clean the surrounding area.

TPN contents:- Hypoallergenic base

TPN soln

Bag containing TPN soln



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Addalapurmet (M),  
R.B. Dist. Telangana



# AVANTHI'S RESEARCH ACADEMY

(Approved by AICTE, Recognised by Govt. of T.S., & Affiliated to JNTU, Hyderabad)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

## INTERNAL DISSCRIPTIVE EXAM

NAME : Srinamika

DATE: .....

Subject: .....

ROLL No: .....

SIGNATURE OF THE  
INVIGILATOR'S: .....

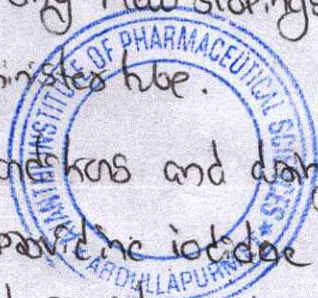
CLASS : ..... SEM .....

SIGNATURE OF THE  
STUDENT .....

TOTAL MARKS

--

- 4) After cleaning & sterilize the area, the TPN soln will be taken from the refrigerator (due to avoid pain and hyperthermia).
- 5) Now, after wearing gloves, cleaning & sterilization, the patient should be placed head low in order to avoid venous distress.
- 6) To avoid air embolism first check the less lock tube and check the flow of the TPN soln.
- 7) Now after air embolism check inserted the needle in the proper way
- 8) If the administration through vein, physician supervision will be required
- 9) After the administration once check the flow of TPN soln towards veins on accurate time.
- 10) Once check the TPN soln clarity of soln, and if any microbial growth seen then avoid the administration of TPN soln.
- 11) If any allergic rxns seen immediately stops the TPN administration.
- 12) TPN soln administered if any flow stoppage or any obstructions occurs first of all replace the administered tube.
- 13) provide highly sterile conditions and during administration to patient clean with alcohol or povidone iodine at administration site to cut down infections and provide cooling effects.



PRINCIPAL  
INSTITUTE OF  
SCIENCES  
AVANTHI'S RESEARCH ACADEMY  
PHARMACY  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist., Hyderabad - 501 512.

Ques:

(8a)

Difference between large volume parenterals (LVP) and Small volume parenterals (SVP): -

Large volume parenterals (LVP)	Small volume parenterals (SVP)
<ul style="list-style-type: none"><li>1) They are mainly contains large volume of 101-1000 ml of volume</li><li>2) Preservatives are not used</li><li>3) used for single usage only</li><li>4) Maintenance is very easy</li><li>5) storage conditions are very suitable in any temperatures</li></ul> <p>Ex:- TPN infusion, saline infusion</p>	<ul style="list-style-type: none"><li>1) They are contains the small volume of 0-100 ml of volume.</li><li>2) Preservatives are used</li><li>3) used for single and multiple doses</li><li>4) Maintenance of drug will be difficult.</li><li>5) Stored at cool temperatures only (refrigeration)</li></ul> <p>Ex:- Amoxicillin injection Antibiotic injections.</p>

Ques:

(8b)

Developing therapeutic guidelines :-

- This concept was invented by the Van-Werkhoven Sharp company (a pharmaceutical company, America) in the year of "1879" in order to give protocol towards therapeutic-guidelines.
- The scientist (Gowdabaz) also invented new therapeutic guidelines to developing better products.
- In other foreign countries & developed countries, they are implement the therapeutic guidelines to provide better care to patients.
- Now-a-days countries like India also implemented new guidelines for therapeutic developments.
- They give proper protocol towards therapeutic guidelines.

Resources of therapeutic guidelines:

- 1) [www.USFDA.com](http://www.USFDA.com) (for drug safety and new discoveries of drug)
- 2) [www.ICMR./research.com](http://www.ICMR./research.com) (New inventory around the India)
- 3) Center of drug development & monitoring of drug (in Germany)
- 4) center for therapeutic guidelines (WHO).

→ This are the resources for therapeutic guidelines world widely.



**PRINCIPAL**  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

def:- news letter is defined as it is a bulletin; periodically released by the medical staff or administrators which contains the information is generally known as news letter.

→ The main aims of news letter is:-

- 1) For the transformation of the news
- 2) For providing information regarding actions of PTC.

1) For the transformation of the news:-

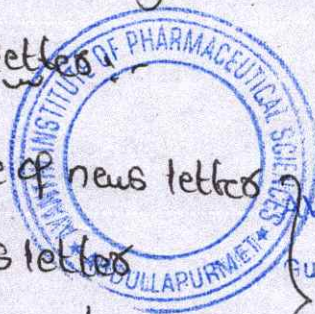
- It provides information regarding new drug policy.
- contains information of ADR's, drug interaction
- contains information of new drugs
- contains information of patient health safety
- contains information of drug administration, health status.

2) For providing information regarding actions of PTC:-

- Information regarding PTC actions
- Any suggestions on utilization of drugs
- ADR's reporting
- Any pharmacist intervention found they will be reported
- drug interactions and toxicity information.

a Layout of the news letter

- 1) selection of the title of news letter
- 2) content of the news letter
- 3) findings & publishment
- 4) distribution
- 5) Advantages



PRINCIPAL  
SAVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
Rajamahendravaram

General layout of the  
news letter.

→ Title should be in a unique and attractive manner.

For example: "Pharmacy - evolution on covid"

"Lack of → The revolutionary change in constitution treatment."

Title should tell about a central concept in one word.

2) content of the news letter: -

content is most important in news letter, content mainly tells about the detailed information of the news letter.

3) Findings & publication: - make attractive news letter.

After the content check if the news letter will be published, by having

4) distribution: - logos.

After publication of news letter, they will distribute the news letter in the region of hospital.

→ distributed to nurses

medical administrators

other staff

physicians

pharmacists

5) Advantages: -

→ Advantages mainly includes on solid proof of work status in the hospital.

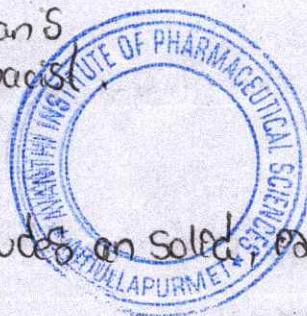
→ They know information of news letter up to ground level staff in hospital.

→ well updated and knowledge gained on news letters.

→ This bulletins are easily understandable.

→ News letters are different from it varies hospital to hospital. Because every hospital making different styles of unique news letters having hospital logo, trademark, brand, special symbol, reputations of hospital etc.

→ So news letters are made very attractively by staff in order to maintain unique status around the competitive world.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Hyderabad (M),  
R.R. Dist. Sangana.

Code No: PD402

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm.D IV Year Regular/ Supplementary Examinations, April/May-2023**  
**HOSPITAL PHARMACY**

**Time: 3hours**

**Max.Marks:70**

**Answer any five questions**  
**All questions carry equal marks**

---

- 1.a) Explain organization structure and functions of a hospital with a neat chart. [7+7]  
b) Explain in detail about different services and staff of hospital.
- 2.a) Discuss the goals of hospital pharmacy. [7+7]  
b) Write the role & responsibilities of hospital pharmacist.
- 3.a) Enumerate the advantages of planning the budget. [7+7]  
b) Enlist the types of budget, explain budget preparation with examples.
- 4.a) Discuss the composition and purpose of pharmacy and therapeutic committee. [7+7]  
b) Explain the formulary system, write the benefits of hospital formulary system.
- 5.a) Explain in detail about Infection committee and its role in hospital.  
b) Describe the factors affecting the potency of drug during storage, layout pharmaceutical warehouse. [7+7]
- 6.a) Discuss about dispensing drugs for In patient service. [7+7]  
b) Classify prescription, write a detail note on floor stock method.
- 7.a) Write the principle, objectives and functions of inventory control, write the advantages and disadvantages of VED analysis.  
b) Explain the Schedules for controlled substances and regulations of hospital-controlled substances. [7+7]
- 8.a) Describe in detail about packing of radio pharmaceuticals. [7+7]  
b) Write the role of pharmacist in isotope pharmacy.



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Def<sup>n</sup> of hospital:- It can be defined as a place or institution for treatment of sick or injured people. It is a place where health care of people is undertaken.

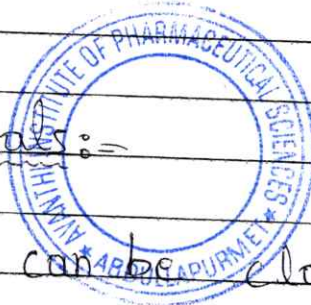
\* The hospital is a complex organisation which provides facilities for medical care, prevention, diagnosis, therapy, rehabilitation, education and research.

Functions of Hospital:-

- 1) provider for diagnosis & treatment of diseases and disabilities of patients both in-patient and out patient cases.
- 2) provides facilities for hospitalisation in general wards or special wards.
- 3) Acts as immunisation centre in the prevention of diseases.
- 4) Take care of safe delivery of child in maternity wards.
- 5) co-ordinates various disciplines of medicines and improves the standard of medical practice.
- 6) provides advices on matters like family planning, STD, AIDS, addicts of alcohol & tobacco etc. for improvement of social aspects and rehabilitation.
- 7) provides physiotherapy centres.
- 8) Educates people on health problems and related activities.
- 9) very big hospitals help in the growth of medical science by having colleges for medicine, dental, nursing and pharmacy courses.

Classification of Hospitals:-

Indian hospitals can be classified on different criteria:-



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guthapally (M), Adulapurmet (M),  
R.R. Dist. Hyderabad

① Tuberculosis Hospital.

- \* TB Research centre - Mumbai Chennai
- \* National TB Institute - Bangalore

(2) Leprosy Hospital;

- \* The Leprosy Mission Hospital - paladpur - maharashtra
- \* The " " " Rumachandrapuram - A.P (Andhra)
- \* The " " " Community Hospital - Dayapuram (Tamilnadu)

(3) Cancer Hospital:

- \* Cancer Research Institute & Hospital - Adyar - Chennai
- \* Bangalore Institute of Oncology - Bangalore
- \* Dharmashila Cancer Hospital & Research centre - New Delhi
- \* Rajiv Gandhi Cancer " " - Rohini (Delhi)
- \* Jawaharlal Nehru Cancer Hospital & Research centre - Bhopal (M.P.)

⑭ mental or psychiatric Hospital:

- \* Government Mental Hospital - Chennai (TN)
- \* " " " " - Hyderabad (TS)
- \* National Institute of Mental Health and Neurosciences (NIMHANS) - Bangalore.

⑤ Diabetes Hospital:

- \* MV Hospital for diabetics - chennai
- \* MV Diabetes specialty centre - chennai

⑥ Maternity Hospital.

- \* All state Govt's have this in all districts.

⑦ Infectious and communicable Diseases Hospital:  
\* Govt. Hospital in all states.

- \* Growth Hospitals in all states.

Teacher's Signature :

### ⑧ Drug Addiction Rehabilitation Hospital or centre:

- \* Drug Abuse Information Rehabilitation Research centre - Mumbai

### ⑨ centres for cardiac rhythm related conditions:

- \* Escorts Heart institute - new Delhi
- \* B.M. Birla Heart Research centre - Kolkata
- \* CARE Hospital - Hyderabad

### ⑩ centres for spinal conditions:

- \* Indian spinal injuries centre - new Delhi
- \* AIIMS - new Delhi
- \* Apollo Hospital - Chennai

### ⑪ centres for treatment of Aneurysms:

→ An abnormal blood vessel bulge.

- \* AIIMS - new Delhi
- \* Indraprastha Apollo Hospital - new Delhi
- \* Amrita Institute of medical sciences - Kochi

### ⑫ classification on the Basis of Anatomical Physiological specialisation:

1. ENT Hospitals
2. Eye Hospitals
3. Kidney Hospitals
4. Dental Hospitals
5. Heart & chest (Thoracic Hospitals)
6. Orthopaedic Hospitals
7. Neurological Hospitals
8. Family welfare hospitals



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Addulapurmet (M),  
R.R. Dist. Telangana.

Teacher's Signature : \_\_\_\_\_

#### ④ Quasi - Government controlled:

↓ supported by Govt. but managed privately

① LIC Hospitals.

#### ⑤ private trusts and charitable trust controlled:

① Bombay Hospital - Mumbai

② Lilavati Hospital & Research Centre - Mumbai

#### ⑥ Run by Religious Bodies:-

① Hindu Mission Hospital - Chennai

② Rama Krishna Mission Hospitals - Chennai, Kolkata, Hyd.

③ Baptist Mission Hospital - Bangalore.

#### ⑦ public limited company controlled:-

① Apollo Hospitals - Chennai, Vizag, Hyd, New Delhi etc. (T=43)

② Vijaya Hospital - Chennai

③ Standard Fire works Hospital - Sivakasi (TN)

④ HAL Hospitals.

Manufacture aeronautical related.

#### ⑧ private Hospitals / Nursing Homes:-

There are plenty of this type of hospitals / nursing homes in all cities and towns in our country, owned by an individual physician or group of physicians, catering to the needs of local people.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana

Teacher's Signature : \_\_\_\_\_

## \* Manufacture of capsules

- \* Capsules:- are solid unit dosage forms in which medicinal and /or inert substances are enclosed in a sm shell of gelatin (Hard or soft shells).
- \* The term capsule is derived from the latin word "ca" meaning a "small container".

\* Gelatin:- A protein, digested by proteolytic enzyme obtained by partial hydrolysis of collagen obtained from bone, skin, and connective tissue of animals.

\* Manufacture / production of hard gelatin capsule  
Hard gelatin capsules are also known as dry fill capsules or two piece capsules.

Hard gelatin capsules consists of two parts known as capsule body (longer part) and the capsule cap (shorter part).

- \* The drug substance is placed in the body and the cap is slid over it. Hence enclosing the drug substance.



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Arduapurmet (M),  
R.R. Dist. Telangana.

## ⑤ Joining of Capsule Caps and Bodies :-

Finally, the trimmed caps and body parts are joined and released from the machines.

\* The width of walls of the capsules shells is to be strictly controlled for accurate fitting of caps over the bodies.

\* This can be achieved by controlling the following parameters.

a) viscosity of gelatin solution

b) Time duration of the dipping

c) speed of spinning of the pins.

\* The pins used for making bodies of capsules have the diameter smaller than those used for making caps.

⇒ This help in perfect compressing of caps over the bodies.

⇒ Hence in the manufacturing of capsule shells, all the above five steps are carried out one after the other with extreme care.

⑥ polishing → pan, cloth dusting & Brushing.

## ★ Manufacturing of soft gelatin capsules :-

\* production by two processes.

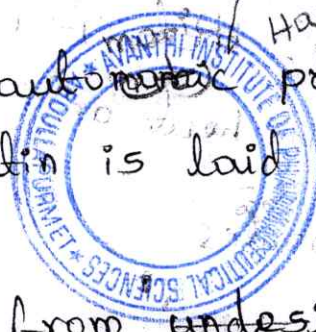
1) plate process

2) Rotary (or) reciprocating die processes.

### ① plate process :-

It is a semi-automatic process in which a warm sheet of soft gelatin is laid over a plate having die pockets.

\* Vacuum is applied from under side of this plate to draw the gelatin sheet into the pockets.



Hand operated methods

PRINCIPAL  
AVANTHI INSTITUTE  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Adityapuram (M),  
R.R. Dist. Telangana.

semi-suspension  
semi-solid  
round, oval, oblong,  
tube shape

⇒ These lubricants can be removed by passing capsules through naphtha bath. → lubricants can be removed by passing the capsule.

⇒ The capsules are then passed through air dryers under pressure to rinse off the excess moisture.

⇒ Finally they are proceeded for packaging.

#### ★ Advantages:-

- ① Heavy materials like pastes and ointments are encapsulated.
- ② Solid medicaments are easily processed with suitable vehicles and encapsulated.
- ③ Capsules are filled with accurately measured medicaments and lightly sealed.
- ④ Bicoloured capsules are formed when different coloured gelatin sheets are used.

#### ★ Disadvantages:-

- ① Less durable → capsules bend to be less stable than tablets.
- ② Shorter shelf life → capsules expire more quickly than tablets.
- ③ More expensive → capsules that contain liquids are generally more expensive than tablets & may cost more as a result.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.F. Zone, Telangana

# Manufacture of Granules:-

size ranges b/w 0.2 to 4.0 mm

- \* Granules are powder agglomerated to produce large flowing particles.   
 *not segregated*
- \* Granules are particles ranging in size from about 4 to 10
- \* They are irregularly shaped but may be prepared to be spherical.
- \* Granulation are also used as intermediates in the preparation of capsule and tablets, since they flow more smoothly and predictably than do small powder particles.

## Classification of granules:-

⇒ Granules are classified into following categories:

- ① Effervescent granules → uncoated granules → containing which react with a source of water
- ② Coated granules → coated with a layer of material
- ③ Gastro-resistant granules → can resist the pH of the stomach & release their active ingredient in the intestine
- ④ Modified release granules → longer period of time (slowly released)

## Methods of preparation:-

⇒ Granules are generally prepared by two methods.

- ① wet method
- ② Dry method

### ① wet method:-

- ⇒ This is to moisten the powder or powder mixture and then pass the resulting paste through a screen of the mesh size to produce the desired size of granules.
- ⇒ The granules are placed on drying trays and are dried by air or under heat.



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (M), Avullapurmet (M),  
 R.R. Dist. Telangana.  
 hot air (60°C)

## ★ Quality control in granules / powder

① particle size and shape determination

② Surface area

③ Density

- \* Bulk density

- \* True density

- \* Granular density

④ Granule strength and friability

⑤ Flow properties

⑥

- \* Angle of repose

- \* percentage of compressibility index

- \* Hausner's ratio

⑦ moisture content

⑧ percentage fines.

① particle size and shape determination:

⇒ size affects the average weight of tablet, disintegration time, weight variation, friability, flowability and drying rate.

⇒ The size and shape depends upon processing requirements during granulation.

★ The methods for determining size and shape are

① Sieving

② Sedimentation rate

③ Microscopy

④ By light scattering



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

\* Definition:- powders may be defined as a solid material in finely divided state. \* is a mixture of finely divided chemical in dry form. \* meant for internal or external use. \* They are available in crystalline or amorphous form.

A powdered drug on its own can be a dosage form for taking orally (called simple powder) when they are usually mixed with water first, or for external application as a dusting powder.

\* Classification of powders:- particle size of powder  $\rightarrow$  plays an imp role in  $\rightarrow$  physical prop, chemical prop, Biological prop.

@ Classification on the basis of use:

- 1) Bulk powder for internal use
  - 2) Bulk powder for external use
  - 3) Divided or unit doses powder.
- \* also affect dissolution, absorption and therapeutic efficacy of drugs.
- \* The size of particles range from 10,000  $\mu$  to 0.1  $\mu$ .

① Bulk powder for internal use:-

They are mixture of finely divided drugs and/or chemicals in a dry form that may be intended for internal use (oral powders).

\* Types:-

- a) oral powder
- b) powder spray
- c) Dry powder inhalers
- d) effervescent powders



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

② Bulk powder for external use:-

\* They are mixtures of finely divided drugs and/or chemicals in a dry form that may be intended for external use available in multiple doses (dusting powder).

## General method for preparation of divided powders:

- ① The minimum weight of individually wrapped powder is 120 mg. Dilution of drug with a diluent usually lactose often necessary to produce the weight.
- ② usually tablets or capsules may be used to prepare oral powders. This involves either crushing the tablets in a mortar and pestle, or emptying the contents of the capsule and adding a suitable diluent.
- ③ Lactose is most commonly used diluent because it is colourless, odourless, soluble, is generally harmless and has good flow properties.
- ④ some patients may be unable to tolerate lactose and suitable inert alternative diluent, for instance light kaolin, would then be used.

## ★ Advantages of powders:-

- \* used for both internal and external
  - \* onset of action is rapid → compared to other solid dosage forms
- ① Good chemical stability compared with fluids.
  - ② useful for bulky drugs with large, ex:- indigestion powder
  - ③ The smaller particle size of powders causes more rapid dissolution in body fluids, gives drug bioavailability & less gastric irritation compared with tablets.

## ★ Disadvantages:-

- ① Inconvenient to carry
- ② Inaccuracy of dose in case of bulk powder.
- ③ not suitable for drugs unstable in atmospheric conditions
- ④ not suitable for bitter, nauseating, deliquescent or corrosive drugs.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abulapurmet (M),  
R.R. Dist. Telangana.

## Liquids

\* Defn :- Homogenous one phase system - 2 or more components - solvent - solute

### \* classification:-

① Internal - mixture, syrup, elixir, linctures.

② External -

\* Instilled into body cavities - nasal spray  
nasal drops  
ear drops.

\* used in mouth - mouth wash  
throat paint  
Gargle.

\* on the skin - liniment  
lotion.

### \* manufacturing

① Cleanliness

② Raw materials

\* Solvent - water, H<sub>2</sub>O

\* Buffers - resist change in pH

\* Density modifiers - dextrose

\* Isotonicity modifiers - dextrose, NaCl

\* preservatives

\* Sweetening agents - sucrose, sorbitol, mannitol



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
BANGALORE  
R.R. DIST. MANGALURU

## \* Manufacture of Creams:

\* Defn: Layer separated from milk

milk of magnesia

certain ointments

\* In pharmaceutical practice creams are

viscous, semi-solid emulsions

meant for external application or use

usually contain water soluble base due to which

can be easily removed from skin.

\* Creams have softer consistency and have light weight

comparison to ointments.

have no visible evidence of their presence on

\* Medicated creams are used → for treatment of skin

and for rectal and vaginal applications.

## \* Advantages:

① Have smooth consistency.

② Less greasy and easy to apply.

③ No visible evidence of its presence.

④ Have soothing action on inflamed areas.

⑤ Have better contact with skin.

⑥ More stable than emulsions.

## \* Disadvantages:

① Stability is not as good as ointment.

② Poor permeability of some drugs through the skin.

③ Possibility of allergic reactions.

+ Tool properties:



PRINCIPAL  
INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
(M) R.R. Dist. Telangana  
Guntur (V)

② oily creams (w/o creams) :=

These creams are composed of  $\rightarrow$  small droplets of water dispersed into a continuous oily phase

③ steral creams := Fusion method.

In steral creams  $\rightarrow$  wool fat (or) wool alcohol

used as emulsifying agent

\* Example := proflavine cream Bpc

④ soap creams :=

In soap creams  $\rightarrow$  calcium soap, triethanolamine

used as emulsifying agent

\* example := cold cream (Borax cream)

Barrier cream (Triethanolamine cream)

\* packaging and storage :=

Jars

wide mouth glass or plastic jars

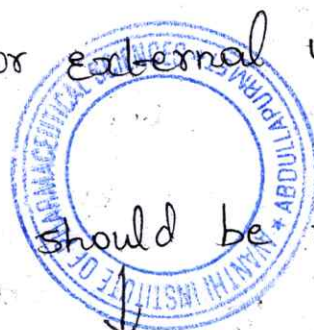
Tubes

Aluminium or plastic tubes

\* Labelling :=

\* storage :=

creams



"For external use only"

should be stored in

well closed containers in a cool place

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally, Hyderabad (M),  
R.R. Dist. Telangana

Sulphur ointment (I.P.) :-

Sublimed sulphur, finely sifted - 10g  
Simple ointment - 90g.

② Fusion method :-

Wool alcohol ointment

Wool alcohol - 6g

Hard paraffin - 24g

White soft paraffin - 10g

Liquid paraffin - 60g.

★ Containers :-

\* In glass or plastic jar having screw caps.

\* Amber coloured glass containers

\* plastic or metallic collapsible tubes.

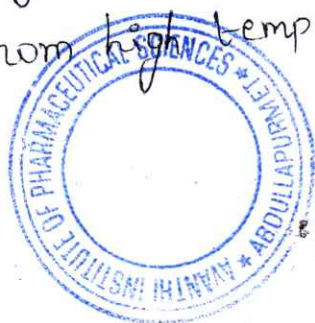
★ Labelling :-

\* For External use only.

★ Storage :-

\* Cool and dry place.

\* protected from high temp (T) or direct sunlight.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

## b. manufacture of ointments, Liquids and creams

### ① ointments:-

\* Defn:- Semi solid preparation which are used for external application to skin or mucous membrane.

⇒ Medicaments dissolved, suspended or emulsified in ointment base.

⇒ Contain antimicrobial preservatives.

⇒ usually used as protective or emollient for the skin.

### \* Ideal characteristics:-

\* physically and chemically stable.

\* ointment base — no therapeutic action.

\* Finely divided active ingredients — uniformly distributed.

\* smooth, free from grittiness and granular particles.

\* easily applicable, melt or soften at body temperature.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Triturate some med.

Can ointment slab with (S.S) spoon → stainless (S.S)  
until a homogenous product is formed.

Add remaining base and mix uniformly  
(Add any liquid ingredient if present)

Ointment so prepared pass through roller mill  
ensure uniform drug dispersion  
removal of any aggregates.

\* Large scale manufacture of ointment by triturate  
requires mechanical mixer

② Fusion method :-

\* This method is suitable → when base is solid.

Small scale → porcelain dish is placed on water bath.  
Large scale → carried out in large steam-jacket Kettle

\* procedure :-

The ingredients and base are melted and  
properly mixed to obtain a uniform product.

Initially the ingredient of highest melting point is  
melted. then remaining are added in ↓ sing order of ↑



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abulapurmet (M),  
R.R. Talangana

## Emulsifying method Unit 1

① Zinc cream :-  $\rightarrow$  uses

★ Composition :-

$\Rightarrow$  It contains 32% w/w of zinc oxide in a cream base.

★ Uses :- Astringent, protective

★ Manufacturing method :-

① Take zinc oxide and calcium hydroxide in a mortar pestle  
triturate, add oleic acid and arachis oil, triturate to  
a smooth paste.

② Add wool fat, continue trituration, when a smooth paste  
without any grittiness is produced, add about 16 ml of  
purified water very slowly in a stream with continuous  
trituration.

③ The cream should be of uniform consistency.

④ pack the cream in a clean, dry wide mouth  
appropriate container, seal and label properly.



✓  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## \* Manufacturing Process :-

- ① Prepn of the oil phase :- Flake/powder ingredients, sometimes blended in advance, are dispersed into mineral oil or silicone. Heating may be required to melt some ingredients.
- ② Hydration of aqueous phase :- emulsifiers, thickeners and stabilizers are dispersed into water in a separate vessel. Heating may be required to accelerate hydration.
- ③ Forming the emulsion :- The two phases are blended under vigorous agitation to form the emulsion.
- ④ Dispersion of the Active ingredients :-

The active ingredient often makes up only a small proportion of the formulation: this must be efficiently dispersed to maximize yield and product effectiveness.

## d) Total parenteral nutrition

★ Def<sup>n</sup> := A method of feeding the patients by infusing the mixture of all necessary nutrients in the circulatory system, thus by passing the

\* Also referred to as:

- \* Intravenous nutrition
- \* parenteral nutrition.

⇒ parenteral nutrition is indicated generally when there is severe gastro-intestinal dysfunction (patients cannot take sufficient food or feeding formulas by enteral route).

① central or total parenteral nutrition (TPN)

② peripheral parenteral nutrition (PPN)

★ Purposes :=

- \* To provide nutrients required for the normal metabolism, tissue maintenance, repair and energy demands.
- \* To bypass the GI tract for patients who are unable to take food orally.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

## \* Indications:- (Symptoms)

\* patient who cannot tolerate enteral nutrition because of

- paralytic ileus → A condition in which the muscles of the intestines do not allow food to pass through → result in a blocked pipe
- Intestinal obstruction
- Acute pancreatitis → a serious condition → a short period of time inflammation
- Inflammatory bowel disease
- Gastro intestinal fistula → An abnormal opening in the stomach/intestine that allows the contents to leak
- Severe diarrhea
- persistent vomiting → symptom of a large variety of systemic disorders → obstructive GI disorders
- Malabsorption → difficulty in digesting/absorbing

\* Hyper metabolic states for which enteral therapy either not possible or inadequate. <sup>excessive rise in metabolic activity</sup> lack of

- Severe burns
- NPO for more than 5 days
- Acute renal failure
- Multiple fractures
- Tumor in GI tract

\* patient at risk for malnutrition → Lack of proper nutrition of caused by not having enough to eat

- Gross under weight → body wt is → too low to be healthy
- Metastatic cancer → stage - 4 cancer

## \* Methods of parenteral nutrition:-

\* ① Total nutrient admixture into a central vein (TNA)

⇒ It is indicated for patients requiring parenteral feeding for seven (or) more days. Given through a

\* parenteral formula combines :-

• CHO in the form of a concentrated 20-70% 'dextrose'   
 carbohydrates solution

• proteins as amino acids

• Lipids in the form of an 'emulsion' (10-20%) included   
 ~~try~~ triglycerides, phospholipids and glycerol.

• water

• vitamins and minerals

\* Peripheral parenteral nutrition (PPN) :-

⇒ This parenteral formula combines carbohydrates & lesser concentrated glucose solution with amino acids, vitamins, minerals.

⇒ Given through peripheral vein.

⇒ Indicated for patients requiring nutrition for fewer   
 less than 7 days.

\* ③ Total parenteral nutrition (TPN) :-

\* This parenteral formula combines glucose, amino acids,   
 vitamins & minerals.

\* Given through a central I.V. line.

\* If lipids are given intermittently mixed with TPN.   
 irregular intervals

\* ④ Fat emulsion (lipids) : It is composed of triglycerides &   
 ex :- phospholipids, glycerol, and water.

\* May be given centrally (or) peripherally.

④ Fat emulsion (Lipids) :=

→ It is composed of triglycerides (10-20%),

★ procedure :=

- ① Assess the need for parenteral nutrition by performing nutritional assessment.
- ② check physician's order for method of parenteral nutrition (TNA, TPN, PPN or lipids) and flow rate.
- ③ explain the procedure in detail to the patient and relatives.
- ④ obtain informed consent.
- ⑤ collect needed equipment for the procedure.
- ⑥ Remove the bag of parenteral nutrition from refrigerator at least 4 hours before procedure (if refrigerated).  
↓ Uses incidence of hypothermia, pain and vasospasm, low body temperature, sudden constriction of blood vessels.  
your body loses heat faster than it can produce.
- ⑦ Inspect fluid for presence of creaming or any change in constitution. Indicates fluid separation. TPN solution should be clear without clouding.
- ⑧ wash hands, don cap, mask, gown and sterile gloves. → follows strict aseptic precautions.
- ⑨ using strict aseptic technique, prevents chances of developing air embolus.  
attach tubing (with filter) to TNA bag and purge out a bubble that becomes trapped.

- ⑪ place the patient in <sup>normal</sup> supine position with head <sup>sleep</sup> position and turn head to one side opens the an away from VAD (venous b/w clavicle and first access devices) insertion site.
- ⑫ clean the insertion site with alcohol and povidine iodine solution.
- ⑬ Assist physician while inserting VAD.
- ⑭ After insertion of VAD, connect tubing to hub of VAD using sterile technique and make that the connection is secured using Luer-Lock connection
- ⑮ open all clamps and regulate flow through volume
- ⑯ monitor administration hourly, assessment for integrity of fluid and administration system and patient tolerance
- ⑰ record the procedure.

### ★ Complications of Total parenteral nutrition :-

① Sepsis :- → the body's extreme response to an infection.  
↳ It is a life-threatening medical emergency.

\* causes : \* most often start in the lung, urinary tract, skin

• High glucose content of fluid (or) GI tract.

• venous access device contamination. (VAD)

\* Interventions :-



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

- consider ↓ using glucose content of I-fluid
- consider removal of venous access device with replacement in alternate site.
- If blood culture is positive consider antibiotic therapy

## ② Electrolyte imbalance :-

### ★ Causes :-

- ~~lag~~ Iatrogenic → illness caused by medical examination (or) treatment
- Effects of underlying diseases, i.e., Fistula  
↓  
cavity opening  
diarrhea, vomiting.

### ★ Interventions :-

- \* Monitor for signs and symptoms of electrolyte imbalances.
- \* Treat underlying cause.
- \* change concentration of electrolytes in TNA as necessary.

## ③ Hyperglycemia :- → An excess of glucose in the blood stream ↓ Diabetes mellitus

### ★ Causes :-

- High glucose content of I-fluid.
- Insufficient insulin secretion.

### ★ Interventions :-

- \* Monitor blood glucose frequently.
- \* Use glucose content of I-fluid if possible.

④ Hypoglycemia: = deficiency of glucose in the blood

Causes: = sudden/unexpected

• Abrupt discontinuation of TNA.

• Administration through a central vein.  
 Interventions: = difficult situation (stalled)

\* After discontinuation of centrally administered TNA

about 10% decrease at the same rate.

⑤ Hypervolemia: = A condition where your body has too much fluid (fluid overload) or (volume overload) - i.e. mean 50-60% shortness of breath

Causes: =

• Iatrogenic → illness

• underlying heart diseases such as congestive heart failure and renal failure. \* occurs when the heart must doesn't pump blood as well it should.

\* Interventions: =

\* monitor intake and output, daily weight, CVP,

breath sounds and peripheral edema. central venous pressure - leg swelling

\* consider administering more concentrated TNA

Assessment of hemodynamic status  
 heart & blood flow

⑥ Hepatic dysfunction: =

Causes: = associated a variety of abnormalities including metabolic abnormalities, malabsorption, malnutrition

• High concentration of CHO, fats relative to protein.

\* Interventions: =

\* Monitor liver function test



PRINCIPAL  
 AVANTHI INSTITUTE OF  
 PHARMACEUTICAL SCIENCES  
 Gunthapally (V), Addilapurmet (M)  
 R.R. Dist. Telangana

⑦ Hypercarbia  $\Rightarrow$   $\uparrow$  se in  $\text{CO}_2$  in the blood stream.

★ Causes  $\Rightarrow$

- High carbohydrate content of fluid.

★ Interventions  $\Rightarrow$

- \* Consider changing formula to  $\uparrow$  se the proportion of fat relative to carbohydrate.

★ Discontinuation of TPN  $\Rightarrow$

$\Rightarrow$  Discontinuation of TPN should take place when the patient can satisfy 75% of his or her caloric and protein needs with oral intake or enteral feeding.

$\Rightarrow$  To discontinue TPN, the infusion rate should be halved for 1 hour, halved again the next hour, and then discontinued.

$\Rightarrow$  Tapering in this manner prevents rebound hypoglycemia from hyperinsulinemia.

$\Rightarrow$  It is not necessary to taper the rate if the patient demonstrates glycemic stability.

## 7. Continuing professional development program Education and training

\* Definition: Continuing education in pharmacy profession is a structured process of education designed or intended to support continuous development for pharmacist to maintain and enhance professional competence.

\* Principles of CPD (Continuing Professional Development)

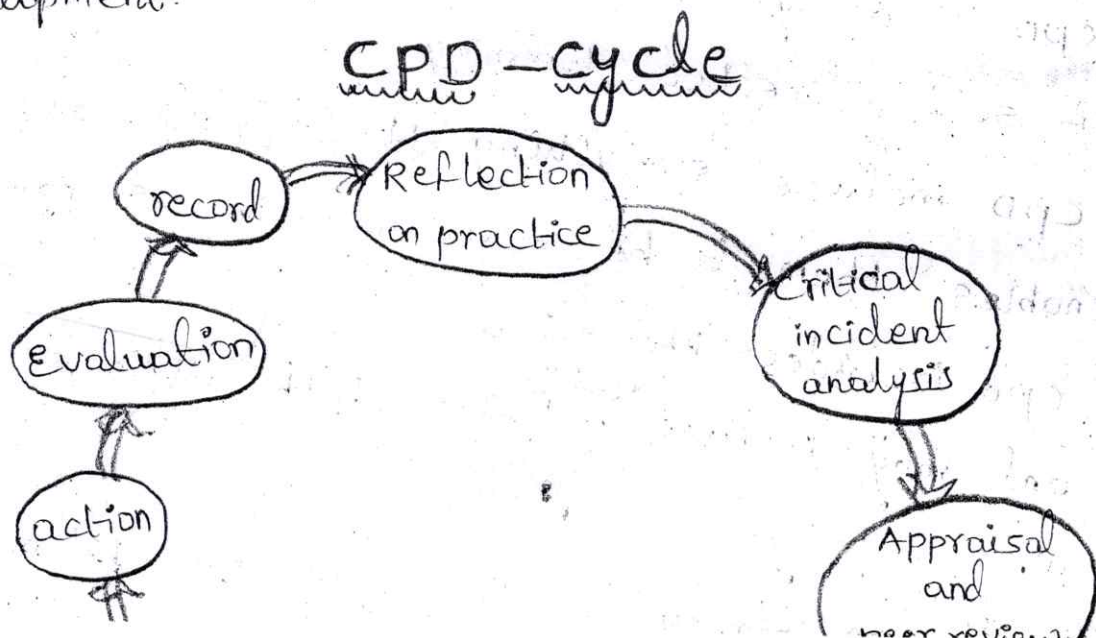
- ✓ CPD is a systematic process ongoing continuous process of self-directed learning.
- ✓ CPD includes everything that practitioners learn that enables them to be more effective as professionals.
- ✓ CPD includes the entire scope of practitioners' practice and may include activities both within or outside work settings.
- ✓ CPD can strengthen the relationship between practitioner and his organization.
- ✓ Practitioners are responsible for their own professional development. The organization has a role in helping practitioners and meet needs related to his profession and job.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abudullapurmet (M),  
R.R. Dist. Telangana.

## ★ CPD concept:-

- ✓ The concept of CPD was proposed as a culture of life-long learning, in which learning programs are used to identify and meet the learning needs of individual health professionals.
- ✓ CPD for pharmacy professionals can be defined as "the responsibility of individual pharmacists for systematic maintenance of profession, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional throughout their careers."
- ✓ It must be an ongoing and cyclical process of continuous-quality improvement by which pharmacists seek to maintain and enhance their competence in both current duties and anticipated future service development.



## \* Reflection on practice:-

- ✓ reflection on practice is the process that is used 'self diagnose' our learning needs.

## \* Critical incident analysis:-

- ✓ critical incident analysis is about learning from near events, and involves taking a thoughtful approach to particular event and looking at the outcome.
- ✓ It is not important if the outcome to the event is positive or negative.
- ✓ The important issue is that the event is analysed and the question asked: 'what did I do to bring about this positive/negative outcome?'

## \* Appraisal and peer review:-

- ✓ Appraisal and peer review are an excellent way assessing learning needs.
- ✓ Typically the way we view our own work is often different from the way that our line manager or colleagues see it.

## \* professional audit:-

- ✓ A professional audit involves systematic evaluation of professional work against set standards.
- ✓ professional audit is a useful tool when reflecting.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdulapurmet (M),  
Tatiparama

## \* Reading and continuing education events:-

- ✓ Active reading of journal articles and the participation in continuing education activities such as workshops can often encourage the wider exploration of an area of professional development.

- ✓ The consideration of questions such as those found in the 'check point' sections at the start of the chapters in this book can be a useful tool.

## \* Reflecting on RPSGB areas of competence:-

*Handwritten notes: Royal Pharmaceutical Society of Great Britain, Head Office London*

- ✓ Another approach is to regularly take stock of our competence by matching our own self-assessed competence against published criteria.

## \* Specific learning objectives:-

⇒ The SMART acronym is a useful tool.

- ✓ S-specific: the objective should state clearly what it is that you want to be able to do.
- ✓ M-measurable: will it be possible to determine if you have met your learning objective?
- ✓ A-achievable: will it be possible to achieve your objective when you take into account...

- ✓ T-timed: your specific objective needs a specific deadline for your goal.

### \* Planning:

- ✓ The first part of the planning stage is to decide on the urgency of the identified objectives.
- ✓ The second stage of the planning process is to consider the importance of the learning objective in terms of how the learning will impact on yourself, your colleagues, your organization and your service users.

### \* Action:-

- ✓ This part of the ~~planning stage~~ CPD process is about implementing plans that have been selected during the planning stage.

- ✓ The specific plans are carried out within the defined time limit and a summary is made of what has been achieved.

- ✓ once the planned activity has taken place, it is time to move on the evaluation stage.

### \* Evaluation:-

- ⇒ At this stage of the CPD cycle, questions are being asked such as:

... learning objective been met?



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guntur  
R.R. Dist. Telangana.

## \* plan and record:

- ✓ The pharmacist CPD record should comply with the good practice criteria published by the RPSGB (Royal pharmaceutical society of Great Britain).
- ✓ Good practice criteria and useful advice to support the pharmacist in recording their CPD are available on the RPSGB plan and record.
- ✓ Referring to these criteria can help to ensure that the CPD portfolio is balanced.

## \* Barriers:

- ✓ CPD is a time consuming process
- ✓ uninteresting subjects
- ✓ Lack of resources.
- ✓ Lack of motivation and interest.
- ✓ system and technical problems
- ✓ facilitation and support issues,
- ✓ poor understanding of the CPD process and evaluating CPD activities.

## \* conclusions:-

- ✓ CPD is seen as a fundamental component of the quality improvement agenda and good professional practice.

✓ Many pharmacists are not engaging fully in CPE and need further support to enable them to do so.

\* pharmacist perceptions of continuing education

✓ Across the pharmacy literature, pharmacists have identified topics relating to therapeutics/pharmaceutical care as the highest ranked area of interest.

✓ subjects relating to pharmacology, pharmacy practice or clinical skills often followed.

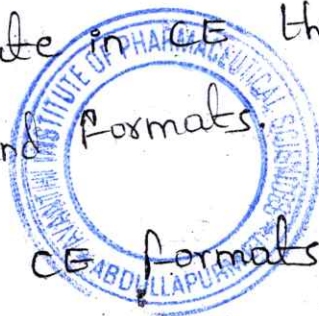
✓ conversely, pharmacy owners ranked the category of "implementing pharmaceutical care" i.e. planning and marketing of pharmaceutical care services, developing value-added services, (reimbursement) as their most preferred CE topic.

✓ Barriers to participation in CE were time considerations and excessive workload or job constraints, cost, lack of program accreditation, and uninteresting subjects were barriers to CE participation.

\* continuing education learning methods:

✓ pharmacists participate in CE through a variety of delivery methods and formats.

✓ The most common CE formats seem to be printed materials, lectures and seminars, internet-based materials, discussion, and monline videos/



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.B. Dist., Telangana

✓ Several studies have been conducted to evaluate the most successful and preferred methods of CE delivery.

✓ Among the studies, a theme that emerged is the preference for live programs versus online or webinar programs while others revealed a range of preferences for CE delivery, including small-group workshops, independent reading of CE, and interest-based activities.

✓ However, there was a common preference for interactive CE activities that include problem solving and feedback from instructor.

✓ Taking this concept a step further, different methods of live CE delivery (ex: lecture versus workshop-based CE activities) have been compared.

⇒ compared approaches include lecture plus large-group case discussions and lecture plus small-group training.

✓ It was found that lecture plus small-group sessions resulted in significantly higher knowledge and participant satisfaction scores.

- parenteral admixtures,

- parenteral nutrition fluids & sterile dosage forms

- quality of manufacturing - compounded, packed, labelled  
control the storage & distribution of drugs.

#### ④ Clinical services:-

- patient medication history,

- Monitoring drug therapy,

- management of medical emergency,

- patient education & counselling,

- Management of chronic conditions.

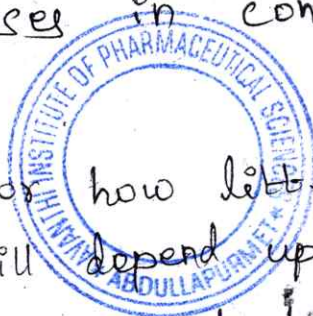
#### ★ INTERNAL TEACHING PROGRAMME:-

##### ① Training of student & nurses:-

✓ In the U.S.A. much has been written regarding the role of pharmacist in the teaching of student nurses.

✓ some advocate that the hospital pharmacist should teach student nurses the entire course in pharmaceutical calculations & pharmacology, others propose that he undertakes to teach certain aspects of these courses in conjunction with the nursing instructor.

✓ How much or how little teachers will depend upon the individual & the environment in which he operates.  
... individual is capable and has so impressed



- ① organisation of hospital pharmacy department
- ② Administrative policies
- ③ professional policies.
- ④ Development and maintenance of policy & procedure policy manual.
- ⑤ Interdepartmental administrative activities
- ⑥ Hospital committee (PTC, infection committee etc.)
- ⑦ departmental staff meeting
- ⑧ personnel management
- ⑨ Drug procurement and inventory control.
- ⑩ safety practices. ⑪ space & facilities planning.

⑥ collateral and Interdepartmental Activities:-

- ✓ Motivate him to participate independently in activities,
- develop a personnel philosophy of commitment to his professional role & responsibilities.

⑦ Ambulatory patient service:-

- ✓ Dispensing of drugs to outdoor patients, dispensing of drugs to emergency ward.

⑧ In-patient distribution & control:-

- ✓ Nurse are involved: nature of drug, effects, dose, toxic symptoms, medication order before administration, administration of oral preparations, administration of drugs by rectal route, administration of drugs by



③ The pharmacy department should be organized according to the principles of good management under the direction of legally qualified pharmacist and with sufficient appropriate person to carry out a broad scope of pharmacy services within the hospital and for the patient and shall comply with all the prescribed legal requirements.

④ personnel for the training:

- ✓ There should be at least one full time legally qualified pharmacist for each resident.
- ✓ The pharmacy director or superintendent shall have the responsibility and the authority to carry out a broad scope of professional service.
- ✓ The pharmacy director or superintendent or his designee, shall be a member of and actively participate in the pharmacy and Therapeutics committee (PTC), medical, dental, dietetic and other similar training programmes.
- ✓ The director should be an active member of hospital pharmacist Association and - or pharmaceutical Association.
- ✓ All other pharmacists on the staff should also be the member of these organisations.

⑤ standards of qualifications and selection of staff

## \* Standards for the hospital undertaking

### Training programme:

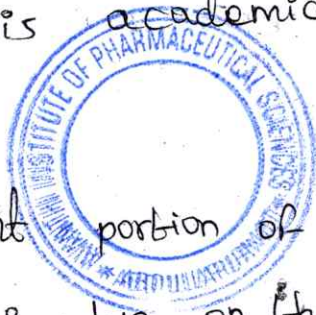
✓ In order that the hospital may be able to carry out its training programme properly and efficiently in which the hospital pharmacist has to carry out the internal and external educational programmes outlined above it has to have certain standards to be adopted

#### ① The hospital should be affiliated to a university

✓ As a teaching hospital, and pharmacy residencies should be conducted only in those hospitals, in which the educational benefits to the resident are considered to be of great importance in relation to the service benefits which the hospital may obtain from the resident.

✓ Total drug use control in the hospital, clinical application of drugs in treatment of patients participation by the resident in the activities of the department lends understanding, confidence and purpose to his academically attained professional background.

✓ A significant portion of such participation must necessarily involve on the job training since only through actual performance of some activities can



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
Rangareddy District, Telangana.

# Training

⇒ cpo training includes various functions of hospital pharmacy and how these are executed in a particular department:

- ✓ Duties, responsibilities & restrictions.
- ✓ Aware of practices in that department with respect to checking, ordering, meeting, requests from wards.
- ✓ provide basic information on the materials to be handled.
- ✓ providing instructions in the various process in which they involved, procedures for safe working, include the safe handling of materials & operation of machine.
- ✓ on one hand major contribution made by the pharmacist to the hospital's teaching program in his role is to education of student nurses.
- ✓ pharmacists involve in training of graduate nurses under graduate pharmacy students, graduate pharmacy students.

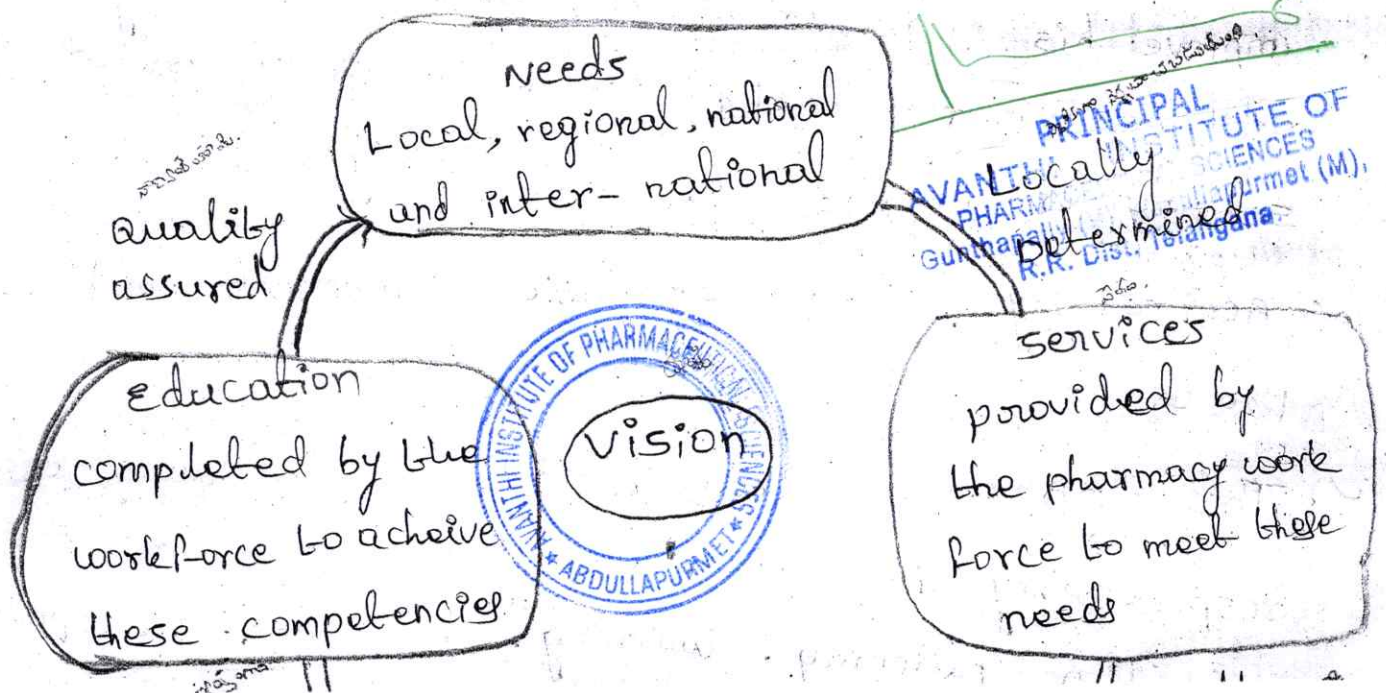
★ Training can take part in both internal & external

Internal Teaching Activities	External Teaching Activities
<ul style="list-style-type: none"> <li>✓ student nurses</li> <li>✓ seminar on therapeutics</li> <li>✓ graduate nurses</li> </ul>	<ul style="list-style-type: none"> <li>✓ guest lecture or speaker</li> <li>✓ specific program <small>short course reviewing/ updating</small></li> <li>✓ refresh courses <small>etc</small></li> <li>✓ residents in hospital admission</li> </ul>

## ★ The Framework for establishing quality in CE/CPD

- ✓ The overall approach to CE/CPD involves a needs-based model.
- ✓ The needs may be local, regional, national, or international and are tied to the services provided by the pharmaceutical professionals.
- ✓ As services provided by the pharmaceutical profession vary from country to country, so too will the educational needs CE/CPD and training activities are targeted to fill the educational need or gap in an effort to ensure that pharmaceutical professionals are competent to provide services in accordance with their practice-setting expectations.

## ★ The Framework for establishing quality in CE/CPD



★ How does continuing education differ from CPD?

- ✓ CPD is a specific process that promotes self-directed life-long learning by which an individual pharmaceutical professional maintains and enhances his or her competence to practice.

- ✓ CPD encompasses all activities, both formal and informal, that the learner undertakes to maintain, develop, and improve his or her professional skills, knowledge, and attitudes in relationship to the needs of patients, the setting or organization, and society.

- ✓ Accordingly CE is an essential component of the CPD process.

- ✓ The CPD process requires that individuals assume responsibility for their learning through a process of reflection, planning, learning, evaluation and application.

- ✓ CPD is a personal professional obligation that is essential for improving the quality of health care.

## Resource and preparation of guidelines:

✓ In 18th century, there will be a merck's manual for guidelines.  
✓ But today there are many data based and websites are available for guidelines.

✓ Among them, centres for diseases control & prevention and American medical association and National Institute of Health of USA are important websites.

✓ Other websites like.

✓ Agency of health care research quality ([www.ahrq.gov](http://www.ahrq.gov))

✓ university of San Francisco ([www.medicine.ucsf.edu](http://www.medicine.ucsf.edu))

✓ university of Illinois at Chicago ([www.uic.edu](http://www.uic.edu)) etc,

✓ India website like, very popular resources is by

• national guidelines clearing house ([www.NGHC.gov.in](http://www.NGHC.gov.in))

• cardiology society of India ([www.csi.gov.in](http://www.csi.gov.in)).

• Main website is <http://www.GUIDELINE.GOV.IN>

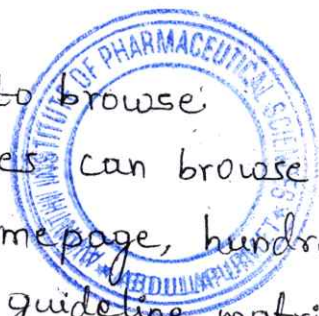
• published by department of health & human resources developed by Agency for healthcare research quality AHRQ department.

✓ All website are not free to browse.

✓ If students or employees can browse the website through guidelines index link, in homepage, hundreds of experts committees, guideline synthesis, guideline matrix, guideline resource comparison of guidelines.

✓ with the acknowledgement to the site authority, a short version of an example guideline is given below so, that students can understand, how to develop a therapeutic guideline.

✓ After the publication prepared, it should be circulated & opinions/suggestions are incorporated or rejected into the draft.



PRINCIPAL  
INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Gunthapally (M),  
Dist. Telangana.

## ★ Organisation:-

- ✓ Administrators (3 members)
- ✓ Medical & pharmacy editors (6 members)
- ✓ IT (Information technology) (1 member)
- ✓ Researcher (1 person)
- ✓ Evaluators (1 person)
- ✓ Marketer (1 person)

## ★ Guidelines characteristics:-

- ✓ Clinically oriented.
- ✓ Arrangement according to clinical or disease wise probl
- ✓ Clear & practical evidence
- ✓ Comprehensive / Cover all common area of care.
- ✓ Authorised,
- ✓ Experts independent interpretation of evidence

## ★ AIM:-

- ① To improve the effectiveness of treatment.
- ② To minimize the duration of treatment.
- ③ To reduce the cost of the treatment.

## ★ Advantages:-

- ① It gives best way of the treatment, in safe and effective way.
- ② If duration and cost of the treatment will less means patients & family members will be happy.

## ★ Disadvantages:-

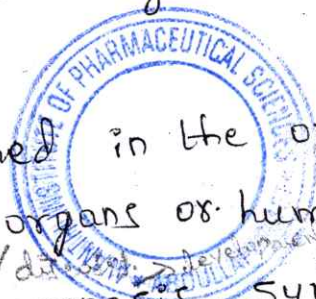
## ★ Meetings :-

- ✓ Most ethics committees meet at least once a mo in order to ensure that no research proposal is held up at the level of the committee
- ✓ Each member must attend at least 75% of all meetings.

## ① Developing Therapeutic Guidelines

### ★ ORIGIN :-

- ✓ Therapeutic guidelines was started publishing : sort of guidelines in the year of 1899, by the company of (MSD) Merck Sharp & Dohme, USA.
- ✓ In the form of manual called The merck manual
- ✓ The manual contains reviews of published literatures and research by senior doctors of developed countries.
- ✓ It is published in the order of diseases and disorder of organs or human systems. It describes <sup>→ set of causes/diseases</sup> etiology, pathogenesis, symptoms, signs, clinical procedures and lab tests for diagnosis, treatment of all diseases known at the time of publishing manual.
- ✓ Associations of specialists has



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Adullapurmet (M)  
R.R. Dist. Telangana.

✓ They are available in diseases wise or disorder wise. They are very much useful not only to practicing clinicians but also to junior doctors, medical pharmacy, nursing students.

\* why therapeutic guidelines required?

✓ Therapeutic guidelines are to help the Doctors to select the most effective line of treatment in specific clinical situations.

✓ Therapeutic guidelines are also known as clinical guidelines or clinical practice guidelines.

✓ According to GRABOWSKI, These guidelines are developed by health care providers to serve as a guide for diagnosis, tests, treatment of a diseases state.

✓ without therapeutic guidelines doctors are in dark, in the matters like what diagnosis tests to carryout and what to avoid.

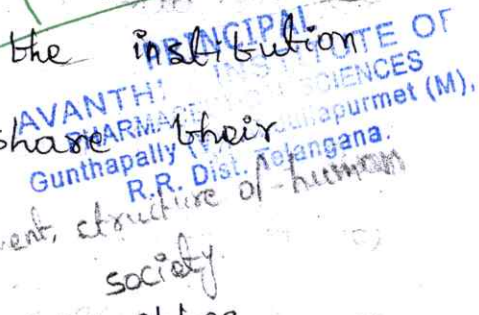
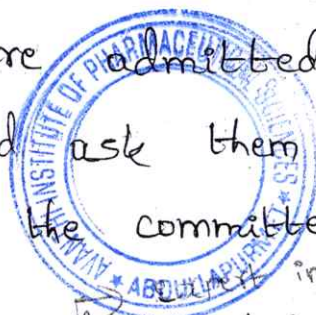
✓ This reduces the cost and duration of the treatment, it gives much relief to the patients and his family.

✓ It provides the effective treatment and assist him in monitoring the patients parameters.

★ The Role of TCM

ethical issue, patient rights, Employee rights and other similar topics

- ③ provide a consultation service for any patient, family member, employee.
- ④ To protect the dignity, rights and wellbeing of the subjects.
- ⑤ To assure the ethics values & international scientific standards.
- ⑥ Approve new clinical trials as well as review trials.
- ⑦ To assist & develop education of research community.
- ⑧ Approve research and other equipments on the patients.
- ⑨ promote ethics use of drugs, equipment, clinical tests, on the patients by the hospitals.
- ⑩ Identifying health care personnel (physicians and nurses) who were admitted to the institution as patients and ask them to share their experiences with the committee.
- ⑪ Asking a sociologist to help the committee create its sociogram to clarify the relationships



★ organization :-

- \* Chair person - A member such as general manager / From out of hospital.
- \* Convener / Coordinator - Any surgical / Medicine HOD
- \* Clinical members - specially, surgery, medicine, laborat radiology, radiation safety officer, representative from nursing department
- \* Non-clinical members.
  - Intensive care unit → ICU and OT in-charge.
  - ↓ over time
- \* One legal expert → don't provide any type of medical tr (or) testing.
- \* Retired Judge
- \* One social scientist.
- \* One representative of non-governmental volunteer a
- \* One philanthropist / Ethist → A person who seeks to promote well are of others
- \* Researcher
- \* A member or secretary - should be from the same in

★ Aims & objectives :-

⇒ The aim is to control and monitor the clinical trials and researchers conducted in hospitals and in this institution.

- ① care of the patient in this institution.
- ② Research
- ③ Education of the staff on biomedical ethics.

★ Responsibilities / Functions :-

- ★ Responsibilities / Functions
- ① provide education to hospital employees through rounds. attend staff meet

## ★ The Role of ICN :-

- ⇒ Identify, investigate and monitor infections, hazardous practice and procedures.
- ⇒ participate in the preparation of documents relating to service specifications and quality standards.
- ⇒ participate in training and educational program and in membership of relevant committees where infection control input is needed.
- ⇒ Active surveillance.

## ★ Research and ethics committee

⇒ Research and ethics committee is also called as Independent ethical committee.

⇒ It was 1<sup>st</sup> introduced in New <sup>USA</sup> Jersey in 1976.  
In India started by ICMR, <sup>Indian Council of Medical Research</sup> in 1980.

⇒ The ethics committee is a multidisciplinary team composed of physicians, nurses, social workers, administrators, <sup>social workers</sup> chaplains and other employees.

⇒ All research proposals must conform to standard scientific and ethical guidelines.

⇒ An ethics committee is a committee <sup>firmly designed</sup> to review & approve the institution of clinical research study involving human participants and to provide continue review of research studies.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Syathapally (V), Abdulapurmet (M),  
R.R. Dist. Telangana.

⑧ Additionally representatives of any other department (pharmacy, central supply, maintenance, housekeeping) may be invited as necessary.

### ★ The Role of Infection Control Team:-

- ✓ To develop an annual infection control plan with clearly defined objective.
- ✓ To develop written policies and procedures include regular evaluation and update.
- ✓ To supervise and monitor daily practices of patient care designed to prevent infection.
- ✓ To ensure availability of appropriate supplies.
- ✓ To organize an epidemiological surveillance program (particularly in high risk areas for early detection of outbreak).
- ✓ To educate all grades of staff in infection control policy, practice and procedures.

★ system of inter-office communication

★ Information Dissemination

★ management review - once a year

## Hospital Infection Control Committee

The risk of infection is always present in every Hospital

⇒ patient may acquire infection before admission to the hospital = community acquired infection.

⇒ patient may get infected inside the hospital = nosocomial infection.

★ It includes infections:

- ✓ not present nor incubating at admission,
- ✓ Infections that appear more than 48 hours after admission,
- ✓ Those acquired in the hospital but appear after discharge
- ✓ Also occupational infections among staff.

★ Infection Control Committee - I.M.P

- ✓ It is a multidisciplinary committee responsible for monitoring program policies implementation and recommend corrective actions.
- ✓ It includes representatives from different concerned hospital departments & management.
- ✓ They meet bimonthly. - monthly 2 times



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guntur, Andhra Pradesh (M)  
R.R. Dist. Guntur

## ★ GOALS OF INFECTION CONTROL COMMITTEE

There are three principal goals for hospital infection control and prevention programs:

- 1) protect the patients
- 2) protect the health care workers, visitors, and others in the healthcare environment.
- 3) Accomplish the previous two goals in a cost effective and cost efficient manner, whenever possible.

## ★ PURPOSE / IMPORTANCE OF INFECTION CONTROL COMMITTEE

- ① Basic measures i.e. standard and additional precautions
- ② Education and training of healthcare workers.
- ③ protection of healthcare workers. ex: immunization.
- ④ Identification of hazards and minimizing risks.
- ⑤ routine practices such as possible aseptic techniques, handling and use of blood and blood products, waste management, use of single use devices.
- ⑥ surveillance
- ⑦ Incident monitoring
- Research.

## ★ INFECTION CONTROL TEAM:-

- ① chief executive, or hospital administrator or his/her <sup>propose</sup> nominated representative
- ② ICD or hospital microbiologist (chair person)
- ③ Infection control nurse (ICN)

### (12) Credentials Committee

- ★ Area of responsibility: Credentialing of physicians
- ★ Report to: Medical Director.
- ★ Output: Quality management system in credentialing of physicians.

### (13) Blood Transfusion Committee

- ★ Area of responsibility: Blood Transfusion
- ★ Report to: medical director
- ★ Output: quality management system in blood transfusion.

### (14) Quality management system

- ★ A quality management system (QMS) is set of policies, process and procedures required for planning and execution (production/development / service). in the core business area of an organization. (i.e. areas that can impact the organization's ability to meet customer requirements.).
- ★ System of Functioning
- ★ Documents and data needed:
  - ① Minutes of meetings
  - ② organizational primer with quality



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahpurmet (M),  
R.R. Dist. Telangana.

### ⑧ Waste Management Committee

- ★ Area of responsibility: waste management
- ★ Report to: operations officer or Director
- ★ Output: quality management system on waste management, producing efficient and effective waste management system.

### ⑨ Medical Audit and Tissue Committee

- ★ Area of responsibility: outcome in patient care such as <sup>death</sup> mortality, <sup>illness</sup> morbidity, and tissue review.

- ★ Report to: Medical Director

- ★ Output: Acceptable mortality, morbidity and unnecessary operation rate.

### ⑩ Tumour Board

- ★ Area of responsibility: cancer management
- ★ Report to: Medical Director
- ★ Output: quality management system on cancer management

### ⑪ Medical Records Committee

- ★ Area of responsibility: Medical records
- ★ Report to: Medical Director (assistance most needed)
- ★ Output: quality management system on medical records

#### ④ Bioethics Committee

- ★ Area of responsibility: Bioethical matters in patient care.
- ★ Report to: Medical Director
- ★ Output: quality management system on bioethical matters in patient care

#### Imp ⑤ Pharmacy and Therapeutic Committee

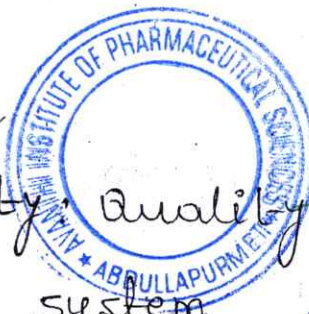
- ★ Area of responsibility: Drug therapy
- ★ Report to: medical Director
- ★ Output: quality management system on drug therapy.

#### ⑥ Infection control Committee

- ★ Area of responsibility: Infection control
- ★ Report to: Medical Director
- ★ Output: quality management system on infection control.

#### ⑦ Quality Council

- ★ Area of responsibility: Quality services and quality management system
- ★ Report to: Mancom / Hospital Director



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

	Function	Attendance	Membership	Tenure
Regular	Fulfill prescribed tasks	Regular	Appointed	Yearly Subject renewal
Ad hoc	Assist	As needed	Invited by regular members	Yearly subject renewal
Ex-officio	Advise	As needed	Invited or designated	Yearly Subject renewal

### ① Execom Committee

- ★ Area of responsibility: quality services and organizational direction.
- ★ Report to: Board of Directors
- ★ Output: effective and efficient governance policies decision-making and oversight producing quality service and financial stability.

### ② Management Committee / Man com comm

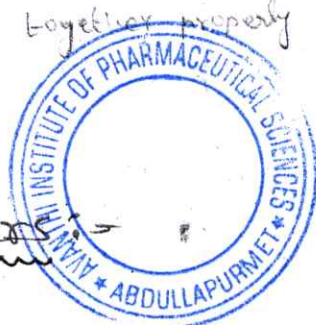
- ★ Area of responsibility: quality services and operational management.
- ★ Report to: Execom
- ★ Output: effective and efficient operational strategies producing quality service and financial stability.

### ③ Committee on Medical Services

- ④ Bioethics committee
- ⑤ pharmacy and Therapeutic committee
- ⑥ Infection Control committee
- ⑦ Quality Council
- ⑧ waste management committee
- ⑨ Medical Audit and Tissue committee
- ⑩ Tumour Board
- ⑪ Medical Records committee
- ⑫ credentials committee
- ⑬ Blood Transfusion committee

### ★ Function of committees :-

- ⇒ Fulfill tasks <sup>successfully</sup> effectively and efficiently that will lead to <sup>beneficially</sup> quality outcome and <sup>success</sup> excellent results with near-zero complaint from internal as well as external customers.
  - ⇒ provide training and education to promote <sup>encourage</sup> goal achievement.
  - ⇒ conduct research to promote goal achievement
  - ⇒ policy <sup>formulation</sup> <sup>formulation</sup>
  - ⇒ coordination → work together properly and well
  - ⇒ monitoring → <sup>resolve</sup>
- ★ Types of members :-
- ① Regular members



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahpurmet (M),  
R.R. Dist. Telangana.

## c) Hospital Committees

★ "Committee":- A group of people appointed for a specific function by larger group and typically consisting of members of that group.

⇒ A person or group of persons elected or appointed to perform some service or function so as to investigate, report on, act upon a particular matter.

★ Hospital committees:- are regular standing committees prescribed by regulatory agencies and deemed necessary by hospital administration in formulating policies, coordinating and monitoring hospital-wide activities that are considered critical in delivery of quality health care services.

★ Types of committees:-

- ① Execom (Executive committee)
- ② Mancom (Management committee)
- ③ Committee of medical services

③ The pharmacy and Therapeutics committee shall develop policies and procedures governing the hospital formulary and the medical staff shall adopt these policies and procedures subject to administrative approval.

④ The policy and procedures shall <sup>provide</sup> afford guidance in the appraisal, <sup>Assessment</sup> selection, procurement, storage, distribution, use, safety procedures and other matter relating to drug in the hospital and shall be published in the hospital's formulary or other media available to the member of medical team.

⑤ prescribers should be strongly encouraged to prescribe drugs by their non proprietary names.

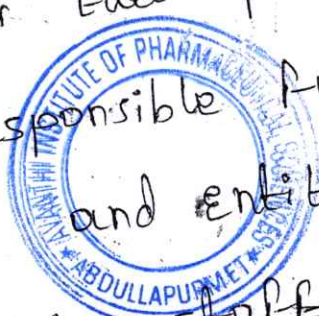
⑥ Generic equivalents & therapeutic equivalents.

⑦ pharmacist is responsible for selecting from available equivalents.

⑧ That the prescriber has the option, to specify the brand for that particular prescription.

⑨ PTC is responsible for determining those drug products and entities.

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R R Dist. Talangana



#### ④ The Format:-

- ⇒ pharmacist decides the format before commencing work on printing and publishing in the hospital
- ⇒ He/she has to collect formularies of some lead hospitals as well as their format.
- ⇒ Copies of finally published formulary may be sent to bodies like directorate general of health services (DGHS), Govt of India, PCI etc

#### ⑤ Size:-

- ⇒ It is sufficiently small in size so that it could easily be carried by clinicians, nurses etc, in the pockets of their uniform or lab coats.
- ⇒ The hospitals may determine their own size of formulary.

#### ⑥ Type of Format:-

- ⇒ Loose leaf or bound printed or mimeographed in duplicate copy and assigning categories.

#### ★ Guideline For Hospital Formulary:-

- ① The governing body of the hospital shall appoint a pharmacy and Therapeutic committee composed of physicians and pharmacists which will prepare the hospital formulary system.

... shall specify

③ Additional supplementary information on each drug:-

- ⇒ price regulatory category.
- ⇒ storage guidelines.
- ⇒ patient counselling information.
- ⇒ Brand names.

④ prescribing and dispensing guidelines:-

- ⇒ principles of prescription writing name and address of the patient.
- ⇒ prescribed drug should be written in formulary terminology.
- ⇒ strength of prescribed medication must be given in accepted metric system. (weight of the dosage form)
- ⇒ correct dispensing guidelines, prevention and reporting of ADRs. (Allergic drug rxns).

⑤ General drug use advice:-

- ⇒ use of IV additives prescribing in special situations.

⇒ poisoning and antidotes.

⑥ Other components:-

- ⇒ Formulas for various diagnostic stains.

⑦ Diagnostic aids

lab-values / agents.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Ganthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## ★ Disadvantages of Hospital

Formulary :-  
any from someone

- ① The hospital formulary system deprives the doctor of the right and prerogative to prescribing a obtained the brand of his choice.
- ② The system may sometimes permit the pharmacist to act as the sole judge to which the brands the drugs to be purchased and dispensed.
- ③ The system may allow buying inferior quality of drugs and it may also not reduce the cost of drug dispensed to the patient or the third party pay

## ★ preparation of Hospital Formulary :-

⇒ It is a principal responsibility of the PTC.

### ① Introductory information :-

⇒ Acknowledgement → Acceptance of the truth.

⇒ List of abbreviations.

⇒ Intended usage of the formulary manual.

### ② Basic information of the drug :-

⇒ Generic name / common name

⇒ Dosage form

⇒ strength indications

⇒ pharmacological action

⇒ precautions

③ Newer sales promotion strategies or pharmaceutical industry.

④ The public interest in getting possible health care at lowest possible cost.

★ Hospital Formulary system :-

① It is a system whereby medical staff of the hospital can select and evaluate medicinal agents and their various dosage forms with the help of PTC.

② It provides them the required information on procuring, prescribing, dispensing and administration of drugs under brand / <sup>common</sup> generic names.

★ Advantages of Hospital Formulary :-

① It provides the practitioner with approved and <sup>effective</sup> efficacious medicines to treat disease.

② Hospital formulary reduces the inventory cost of the drugs. It <sup>regulates</sup> regulates the number of medicines by improving the procurement and inventory management.

③ It improves the quality assurance and easier dispensing.

④ It gives stress on medicine information and focused on efforts.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
ABDULLAPURMET (M),  
R.R. Dist. Telangana.

## 5. Hospital Formulary 4

★ Defn := Hospital Formulary is a continuously revised <sup>collection</sup> compilation of pharmaceuticals <sup>(dosage forms)</sup> including important ancillary <sup>(additional)</sup> information that <sup>contains</sup> reflects the current clinical judgement of the medical staff.

★ Origin :=

⇒ The first scientific hospital formulary in India was published in 1968 by the pharmacy department of CMC → christian medical college vellore. (T.N)

⇒ The first HF for a government teaching hospital in india was published in 1997 at Govt medical college and Hospital, Trivandrum. (Kerala)

★ The need for Hospital Formulary :=

- ① The increasing number of new drugs manufacture marketed by drug companies.
- ② Increasing <sup>powerful</sup> complexity of untoward effects of more potent drugs. <sup>(inconvenient or more potent)</sup>

⑩ work tables.

The above list is only illustrative and not exhaustive. <sup>To make your meaning clearer.</sup> (thoroughgoing)

## Implementation of Budget

⇒ "Implementation" is defined as "Act of carrying out the plans, programs and projects in accordance with the strategic plan in order to attain set goals and objectives."

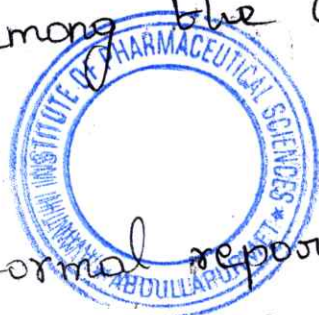
\* It consists of...

- A. structure and Governance
- B. Institutional and individual Accountability.
- C. plan Financing
- D. plan execution.

① Structure and Governance :=

⇒ Formal structure is the established patterns of relationships among the component units of the organization.

⇒ Designates formal reporting relationships and the number of levels in the hierarchy.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guntur (V), Abulapurmet (M),  
R.R. Dist. Telangana

⑫ pressure pumps

⑬ Vacuum pumps,

⑭ Refrigerators

⑮ weighing machines, and scales

⑯ type writers

⑰ work tables

⑱ meters - conductivity, pH, polarimeter etc.

⇒ Following is a suggested list of items for whose life periods may be ascertained and fixed which may be utilized by the Budgeting Authorities.

★ Administrative equipments:-

① Book cases (wooden/metal),

② Notice boards,

③ calculators, / computers,

④ personal computer, printer, scanner etc.

⑤ Cash registers,

⑥ Clocks,

⑦ Desks (wooden),

## Method of preparation

① Trituration method:- (Geometric dilution) → Thoroughly mixing a small amount of drug with the appropriate amount of solvent which then binds.

- ① used for finely divided insoluble powder particles or liquids insoluble powder are added by geometric dilution. Liquids are added by making well in centre.

② Air pocket formation avoided. Involved the use of glass slab when small quantities are used. Mortar and pestle used when we have large quantities.

③ Levigation method:-

- ① Incorporation of insoluble coarse particles. Also known as "wet grinding".

② Insoluble coarse powder is rubbed with molten base or liquid or a semi-solid base.

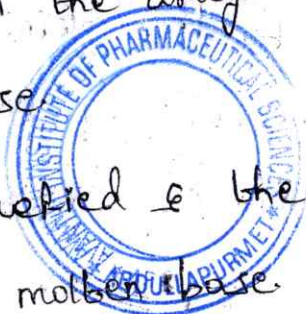
③ A considerable shearing force is applied to avoid grittiness.

④ Fusion method:-

- ① It is used when the drugs and other solid are soluble in the ointment base.

⇒ The base is liquefied & the soluble components are dissolved in the molten base.

② The congeal mixture is then speculated or triturated.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Alimnagar (M)  
R.R. Dist. Telangana

# ★ Manufacture of creams → softer consistency → emulsions of oil & H<sub>2</sub>O

★ Defn:- a thick liquid or semi-solid cosmetic or medicinal preparation applied to the skin.

⇒ 1 or more drug substances dissolved or dispersed in a suitable base. \* semi-solid emulsion of either

① convenient and easy to apply. (Aqueous) o/w type cream  
(oil) w/o " " "

② Avoid fluctuation of drug levels inter and intra patient variations. \* easily H<sub>2</sub>O washable → easy to wipe away.  
\* Less greasy compared to ointment.

③ Achievement of efficacy with lower total daily dosage of drug by continuous drug input.

★ Disadvantages:-

① Skin irritation or contact dermatitis may occur due to the drug and / excipients.

\* stability is not as good as ointment.  
② poor permeability of some drugs through the skin.

③ possibility of allergic reactions.

★ Ideal Properties:-

① easy to apply.

\* It should be non-toxic

② spread easily on the skin.

③ pleasant in appearance.

\* It should be Non-inflammatory.

④ Less irritation to the skin.

⑤ melt or liquefy when applied on to the skin.

\* o/w cream → are composed of small droplets of oil dispersed in a continuous phase.  
Less greasy.

ex:- vanishing cream

\* w/o cream → are composed of small droplets of H<sub>2</sub>O dispersed in a continuous oily phase.

ex:- cold cream → more difficult to wash.

★ Classification of creams:- According to their function

① Cleansing and cold creams

② Foundation and vanishing creams

Rinse the beaker with 4 ml of purified H<sub>2</sub>O & pour into the mortar.

Add tween 80, glycerin, sorbitol, liquid & colour, continue triburation.

Add menthol and peppermint oil, triburate for at least 30 mins.

Estimate the content of drug.

Transfer the suspension into a clean, dry bottle, seal with pilfer proof cap and label.

#### ④ Liquid paraffin & magnesium Hydroxide Emulsion

\* Composition:-

Mg(OH)<sub>2</sub> — 6.2%.

Liquid paraffin — 27%.

\* Use:- Antacid and osmotic laxative.

\* manufacturing method

Transfer liquid paraffin into a 100 ml beaker marked at 50 ml.

place it over a magnetic stirrer

Add MOOH mixture gradually with constant stirring



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

determine the  $\downarrow$  alcohol content & wt. per ml or 200 ml

③ Antacid suspension :-

★ Lang Hermsdorf v =

☆ Composition :-

Each 5 ml contains

Dried Aluminium Hydroxide Gel IP - 250 mg  
magnesium Hydroxide IP - 250 mg  
Dimethicone activated IP. - 50 mg.

★ use  $\Rightarrow$  Antacid

\* manufacturing method :-

Take required quantity of syrup in a 25 ml clean beaker  
heat on a boiling  $H_2O$  bath.

Add weighed quantity of methyl paraben, propyl para sodium benzoate, bronopol.

stir with a glass rod until dissolved.

Add sodium CMC, stir with a glass rod until a mucilage is formed.

Take aluminium hydroxide,  $Mg(OH)_2$  & sodium CMC  
" " " Ad simethicone & make.

1. = 90-100%  
2. = 40-50%  
3. = 15-40%  
Filter through  $G_4$  sintered glass under vacuum  
5-15 micron  
determine alcohol content, it should not be  
L.T 1%.

↓  
Fill in glass bottle, seal with pilfer proof cap  
↓  
Label properly, store at a temp (T) below 25°C

## ② Concentrated chloroform water:-

\* Mfg formula:-

Chloroform — 10 ml  
Alcohol (90% v/v) — 60 ml  
purified water — q.s

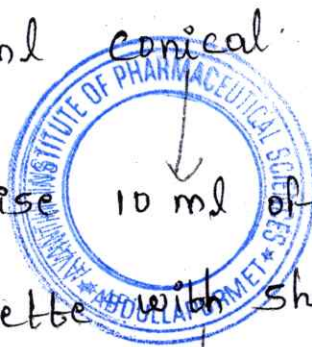
\* Lot size:- 100 ml

\* manufacturing method:-

Measure 60 ml of alcohol (90%) & transfer into  
a 250 ml conical flask

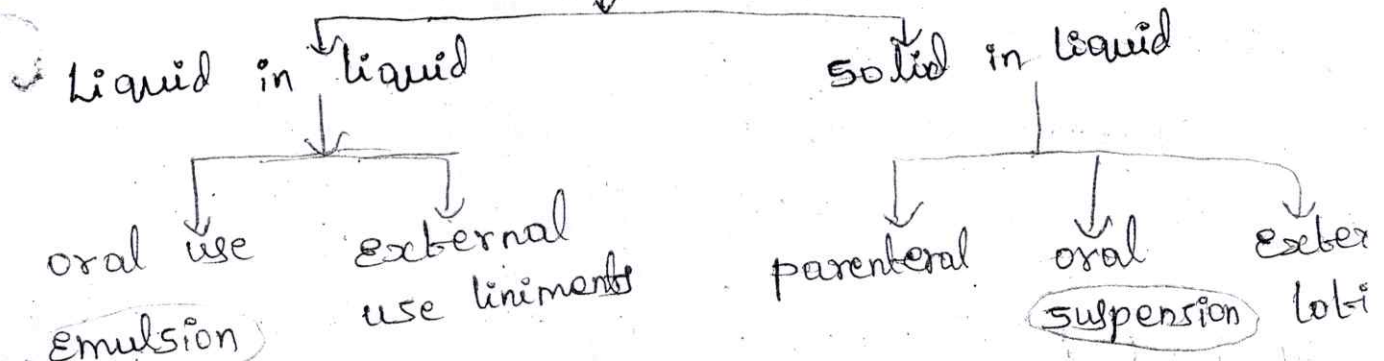
Add drop wise 10 ml of  $CHCl_3$  drawn through a  
10 ml pipette with shaking.

Add about 30 ml of purified  $H_2O$  slowly with  
constant shaking.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Sudhanallu (V), Abdullapurmet (M),  
Guntur Dist. 522 002  
R.R. Dist. Tadipatri

# Biphasic liquid dosage form



\* Syrup :- a thick, sweet liquid made by dissolving sugar in boiling water, often used for preserving fruit.

① Ex: = Citric Acid Syrup

Mfg. formulas =

Lemon Tincture USP - 0.25 ml

Citric Acid, Hydrate USP - 0.25 gm

Purified H<sub>2</sub>O USP - 0.25 ml

Simple Syrup USP - q.s.

\* Lot size: 25 ml.

\* Manufacturing method =

① Take weighed quantity of citric acid in a clear 50 ml measuring cylinder.

↓  
Add purified H<sub>2</sub>O & shake to dissolve.

↓

## \* Disadvantages:-

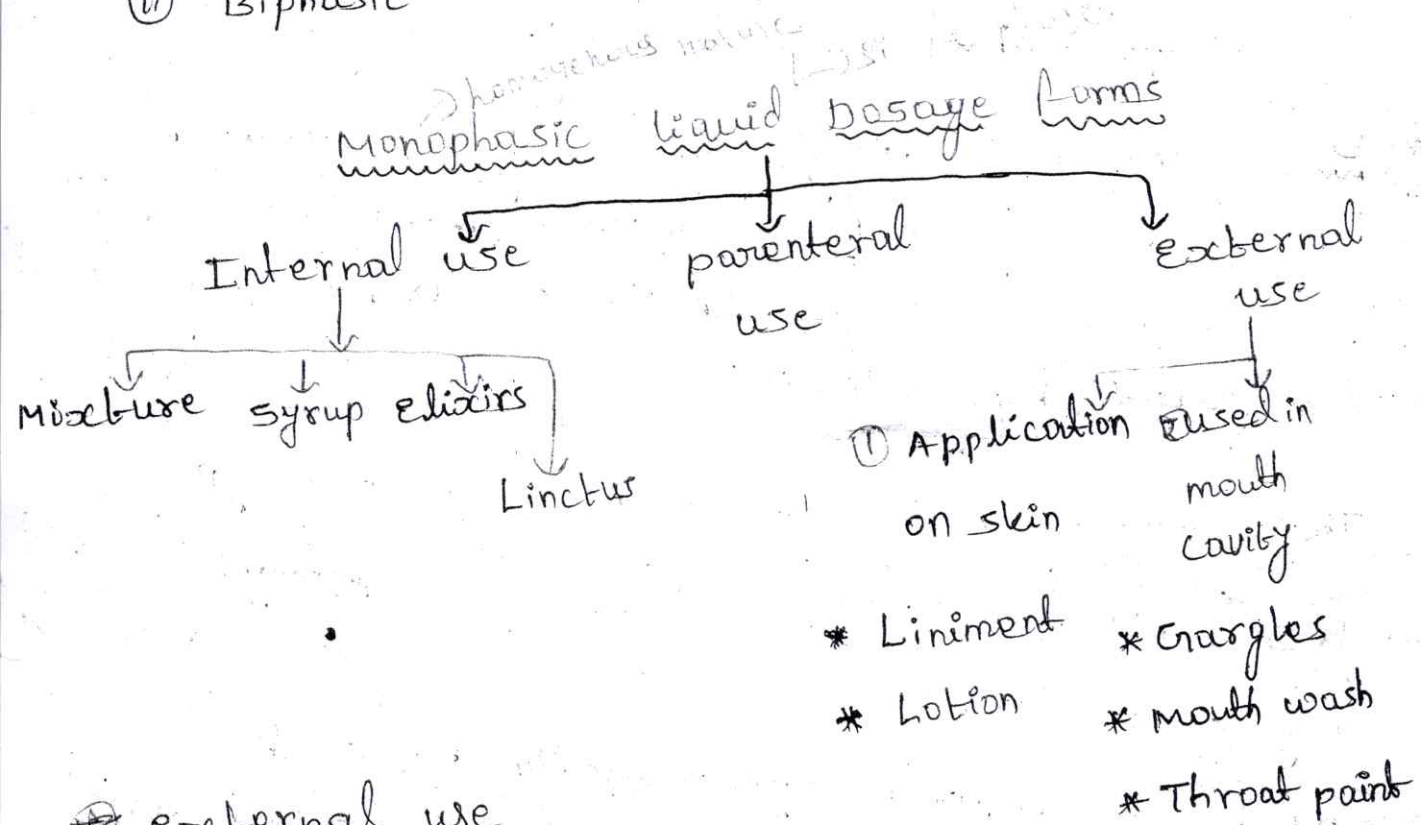
- ① shorter life before expiration than other dosage forms.
- ② more difficult to administer.
- ③ Harder to measure accurately.
- ④ May have special storage requirements.

## \* Types of liquid dosage forms:-

⇒ Liquid dosage forms are classified into two types.

① Monophasic liquid dosage form

② Biphasic



③ external use

③ Inserted into body cavities

Douche

ear drop

nasal drop

nasal spray.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

## Manufacture of Liquid Dosage Forms

\* Defn: The liquid dosage forms may be intended for or administration (oral liquids), ophthalmic or parenteral administration (sterile liquids), or for external application (topical liquids).

⇒ These may be solution, suspension or emulsion type.

⇒ Liquid form of a dose of a chemical compound used as drug or medication intended for administration or consumption.

⇒ may be administered systematically by mouth or injected by using different techniques, into the skin, muscles, &

veins.

### \* Advantages:

- ① Better for patients who have trouble swallowing.
- ② Faster absorption than solids.
- ③ palatable.
- ④ Best choice of for children and old age person.
- ⑤ More flexibility in achieving the proper dosage of medication.

- i) potassium
- ii) calcium
- iii) magnesium.

② Anions := are (-vely) charged electrolytes

- i) chloride
- ii) phosphate
- iii) Acetate.

① chloride := is the major extracellular anion.  
Along with sodium, it regulates interstitial osmotic pressure.

⇒ chloride also helps to control blood pH.

⇒ parenteral chloride preps include cack and NaCl.

③ Dialysates := They are irritating solutions used in the dialysis of patients with disorders as renal failure, poisoning, and electrolyte disturbances.

\* These products remove waste materials, serum electrolytes, and toxic products from the body.

① In peritoneal dialysis

② In hemodialysis

④ Irrigating solutions := They are used to process



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

⇒ water suitable for parenteral preparations include sterile water for injection and bacteriostatic water for injection.

② Ringer solutions := are appropriate for dilution of such fluid and electrolyte replacement commonly are administered to post-surgical patients.

- ① Ringer injection.
- ② Lactate Ringer injections.

② Electrolyte preparations :=

Ions present in both intracellular and extracellular fluid, electrolytes are crucial for various biological processes.

⇒ Surgical and medical patients who cannot take food by mouth or who need nutritional supplementation require the addition of electrolytes in hydrating solutions or parenteral nutrition solutions.

① Cations := are positively charged electrolytes

① "Sodium" → is the chief extracellular cation

② It plays a key role in interstitial osmotic pressure, tissue hydration, acid-base balance, nerve impulse transmission, and muscle contraction.

... in ...

### ⑤ Sodium chloride injection:-

It is a sterile isotonic solution of chl in water for injection. It contains no anti-microbial agents.

### ⑥ Bacteriostatic sodium chloride injection:-

It is a sterile isotonic solution of sodium chloride in water for injection containing one or more suitable anti-microbial agents.

### ★ Some important parenteral preparations:-

#### ① I.V. Admixtures:-

These preparations consist of one or more sterile drug products added to an I.V. fluid generally dextrose or sodium chloride solution also or in combination.

⇒ I.V. admixtures are used for drugs intended for continuous infusion and for drugs that may cause irritation or toxicity when given via direct I.V. injection.

#### ② I.V. Fluids and Electrolytes:-

① Fluids:- used in the prep and administration of parenteral products include ① sterile water and ② sodium chloride, ③ dextrose, and ④ <sup>ringers sol</sup> ~~ringer's sol~~

⇒ These fluids have multiple uses, for admixture



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunturpally (V), Abdullahpurmet (M),  
R.R. Dist. Telangana.

Dextrose in form solutions are one most frequently used glucose solutions in parenteral preparations.

(i) Generally, a solution of 5% dextrose in water (D5W) is used as a vehicle in IV admixtures.

⇒ D5W may also serve as a hydrating solution.

(ii) Because the pH of D5W ranges from 3.5 to 6.5 instability may result if it is combined with an acid-sensitive drug.

(iii) In higher concns (e.g. a 10% soln in H<sub>2</sub>O), dextrose provides a source of carbohydrates in parenteral nutrition solutions.

(iv) Dextrose solutions should be used cautiously in patients with diabetes mellitus.

(b) sodium chloride :-

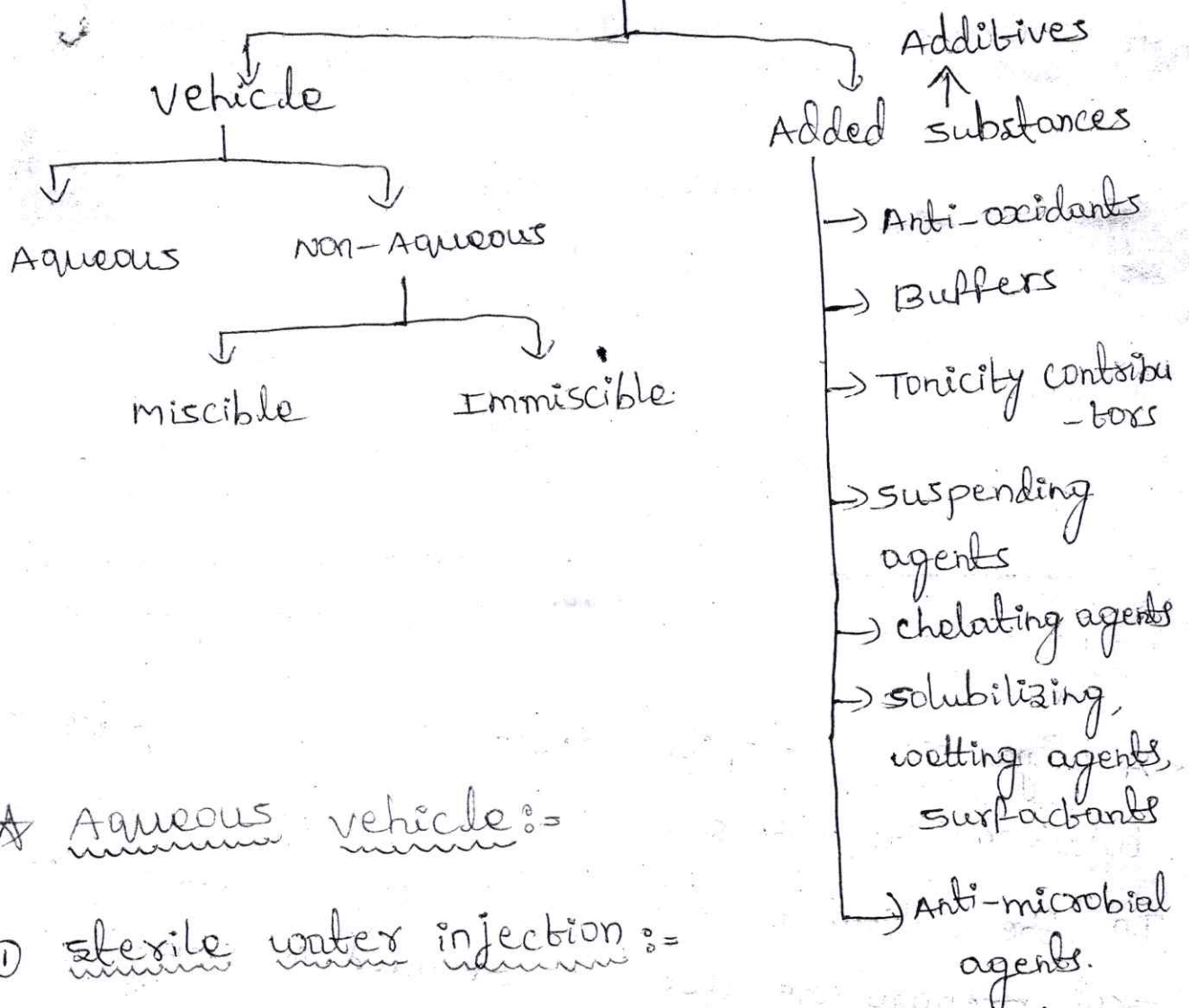
NaCl usually is given as a 0.9% solution. Because it is isotonic and hence "normal" with blood, this solution is called normal saline soln (NSS).

⇒ A soln of 0.45% NaCl is termed half-normal saline.

(i) (Ringer's injection) sterile sodium chloride for injection

(ii) Lactate Ringer injection. Bacteriostatic NaCl for injection

# ★ Components of parenteral preparations:-



## ★ Aqueous vehicle:-

### ① sterile water injection:-

It is pyrogen free and does not contain antimicrobial agents.

### ② Bacteriostatic water for injection (BWFI):-

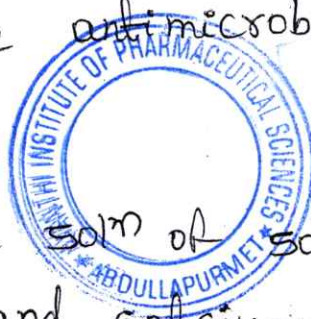
BWFI is sterile water for injection containing one or more suitable antimicrobial agents.

### ③ Ringers injection:-

It is sterile soln of sodium chloride, potassium chloride and calcium chloride in water.

### ④ Lactate Ringer injection:-

It has different quantities of the same three



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guntur (V), Addlapurmet (M)  
R.R. Dist. Andhra Pradesh

## Manufacture of pharmaceutical preparations (Sterile)

- \* A large sized hospital deals with critical patients in addition to others.
- \* In the critical patients, it is very common to use parenteral preparations that are required in emergency.
- \* Most / many hospitals go for the manufacture of sterile preparations within hospital.

### Small volume parenterals (SVP)

- ① An injection that is packed in containers labelled as containing 100 ml or less.
- ② Single or multiple use.
- ③ Drugs
- ④ preservatives are used
- ⑤ Administered through various parenteral routes.
- ⑥ Isotonicity is not essential
- ⑦ pyrogenicity is not essential

### Large volume parenterals (LVP)

- ① An injection that is packed in containers labelled as containing 101 ml - 1000 ml.
- ② single use.
- ③ used to provide calories.
- ④ preservatives are not used
- ⑤ Administered through I.V infusion technique
- ⑥ Isotonicity is must
- ⑦ pyrogenicity is essential

## © Buffering Agents:-

\* They prevent degradation of API  $\rightarrow$  due to change in F  
 $\downarrow$

by monitoring desired pH

\* So buffer selected  $\rightarrow$  should not affect pharmacology activity and solubility of drug

\* The most ideal pH of parenteral preparation is - 7.4

## \* Examples:-

Acetate buffer

Acetic acid buffer

Benzoate buffer

Sodium bicarbonates buffer

## © Solubilizers (Surfactants):-

These are used to increase solubility (wetting-property) of drug  
 $\downarrow$  or

To disperse water-insoluble drug to form colloidal dispersion

## \* Examples:-

propylene glycol

povidone

poly sorbate 80

PEG 30

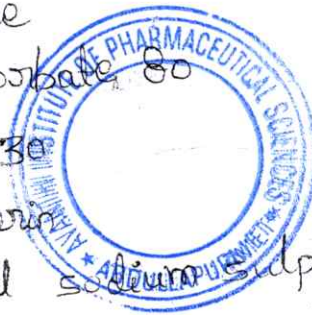
Glycerol

Diethyl

sodium sulpho succinate (Diss)

## © Chelating Agents:-

These inactivate heavy metals  $\rightarrow$  such as copper, I  
... chromium etc.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
unthapally (Vijayapur Dist.)  
R.R. Dist. Telangana.

★ examples:

EDTA (Ethylenediamine Tetra Acetic acid) and its salts. sodium or potassium salt of citric acid.

① Tonicity Contributing Agents:-

parenterals need to be isotonic with → body fluid

↓  
depends on amount and nature of solute present in it.

Tonicity adjustment is done by

- 0.9% NaCl
- 2.0% Boric acid
- 5.0% Dextrose

★ Production procedure of parenteral preparations:-

\* Steps involved in production are:-

- ↓
- cleaning of containers, closures and equipments
  - collection of materials
  - preparation of a parenteral product
  - Filtration
  - Filling the preparation in final containers
  - Sealing the containers
  - Sterilization
  - Evaluation of parenteral preparations
  - Labelling and packaging

⑧ No chance of missing dose

⑨ used in case of emergencies → when rapid action is required

\* Limitations:-

① Self-medication is not possible.

② Requirement of aseptic techniques in → production  
→ compounding  
→ Handling

③ Real or psychological pain associated with injection.

④ negligence during administration can lead to infections.

⑤ Expensive

⑥ Impossible to retrieve if adverse reaction occurs.

Recover  
Formulation of parenteral preparations

↓  
Vehicles

↓  
Excipients / Additives

→ Aqueous vehicles (water)

→ non-aqueous vehicles

→ water miscible vehicles

→ Anti-oxidants

→ Anti-microbial agent (preservatives)

→ Buffering agent

→ Solubilizers (surfactants)

→ chelating agents.

→ Tonicity contributing agents.

① Vehicles:-

② Aqueous vehicles

water is universal solvent → used in pharmaceuticals



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

## ② Excipients / Additives / Adjuvants :-

① Anti-oxidants :- prevent oxidative degradation of active ingredients by

- undergo oxidation in place of API (Reducing agents)
- Block an oxidative chain reaction
- prevent oxidation by forming a complex

### \* Examples :-

- \* Reducing agent → Ascorbic acid, Sodium bisulphite and Sodium metabisulphite
- \* Blocking agent → Ascorbic Acid esters, Butylhydroxy toluene (BHT), Tocopherols.
- \* Chelating agent → Ethylene diamine tetra acetic acid (EDTA)

## ③ Anti-microbial Agents (preservatives) :-

- \* These substances are added in adequate quantity

↓  
To prevent growth of microorganisms.

↓  
Act as preservatives or anti-bacterial agents

### \* Examples :-

Benzalkonium chloride — 0.01%

Benzyl alcohol — 1 - 2%

Chlorobutol — 0.25 - 0.5%

Mini bags (25 to 100ml)

⑥ Large volume parenterals:- (LVP) I.V.F → 1ml - 500ml / MT 500ml  
varies from 5ml or above.

I.V.F → 500ml or MT 500ml  
(LVP)

\*calories (dextrose soln) ↓ Fluid, replenisher of electrolyte and nutrients.

② Based on physical nature:-

10l - 1000ml

- ① powder for injection → antibiotic injections
- ② Colloidal solutions → Iron dextran
- ③ Injectable emulsion → propofol usp
- ④ Injectable suspensions → Methyl prednisolone acetate
- ⑤ oily injections → Dimercaprol injection.
- ⑥ Infusion fluids

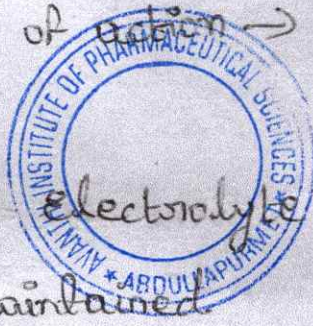
★ Advantages:

- ① Ease of drug administration in unconscious patients.
- ② Drugs which can not delivered through oral routes

unstable      poor GI absorption  
can be administered

③ Fast onset of action → directly administered in systemic circulation.

④ Fluid and electrolyte balance can be accurately & rapidly maintained.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

WFI  
↓  
prepared by reverse osmosis (or) by distillation  
used in parenteral preparation

\* WFI is → Pyrogen free distilled water.

\* The aqueous vehicles used are -

→ water for Injection

→ water for Injection free from  $CO_2$

→ water for Injection free from dissolved air

(b) Non-aqueous vehicles:-

\* Some parenteral formulation employed → Non-aqueous vehicles due to

↓  
drugs shows poor aqueous solubility  
when prolonged action is required → steroids  
when drug is susceptible for hydrolysis.

↓  
barbiturates

\* Ex:-

Fixed oils → Arachis oil, cotton seed oil, almond oil  
polypropylene, Alcohols, glycerine, polyethylene glyco.  
glycol → These are insoluble or slightly soluble in  $H_2O$

(c) water miscible vehicles:-

mainly used as co-solvent  
↓

Ethyl alcohol

indicating complete absence of physical, chemical and biological contamination

\* As parenterals  $\rightarrow$  bypass GIT and Liver

$\downarrow$   
directly enter into the systemic circulation

$\downarrow$   
has rapid onset of action and 100% bioavailability

\* Examples of parenteral dosage form:

(i) small volume parenterals  $\rightarrow$  injections, suspensions, emulsions, freeze-dried powders,

(ii) Large volume parenterals  $\rightarrow$  Fluid, Electrolyte and nutrients.

(iii) Biological preparations  $\rightarrow$  vaccines, serum, blood p/bts

(iv) ophthalmic preparations  $\rightarrow$  Eye drops, ear drops

(v) Irrigation fluids  $\rightarrow$  to wash wounds, surgical incisions and sterile body cavities.

(vi) peritoneal and haemodialysis solutions

(vii) plasma volume expanders

\* Types of parenteral solutions:

(i) Based on volume:-

(a) Small volume parenterals (SVP)



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## 6. Manufacturing of parenteral preparations

\* Def<sup>n</sup>:- The word parenteral is derived from Greek word

① para

(Outside / Beside)

② Entero

(Intestine)

Routes other than oral route of administration

So parenteral preparations are defined as

↓  
sterile dosage forms which are intended for administration into body.

↓  
Either by injecting, infusing or implanting <sup>→ saline</sup> them directly into blood vessels, tissues, tissue space body compartments.

\* parenterals are essentially → sterile, pyrogen free

Liquids

↓  
manufactured under strict aseptic environment

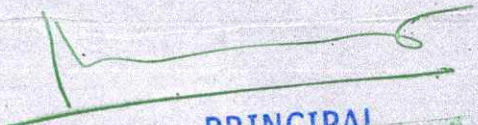
↓  
means free from micro

Vacation when the staff is

This method is safe and legal one. It meets the demands of the hospital and patients and earns goodwill in the community.

⇒ This is a better method to safeguard the health needs of the patients on a round the clock basis and during emergency.



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M).  
Dist. Telangana.

is important.

- ⇒ The emergency box must be large enough to contain the necessary supplies and yet sufficiently compact to facilitate handling them.
- ⇒ The emergency drug box should be kept at an accessible <sup>nearby</sup> place, known to all ward personnel and should be ready for use at all times.
- ⇒ Emergency box should have an inventory & product control card in the box to check outdated drugs and control the inventory information for replenishing.

#### ③ pharmacist on-call system:-

This system also provides for 24 hrs pharmacy service. Extra pay plans are given to the pharmacist on call.

- ⇒ Rotational plans of on-call duty do not burden any single individual pharmacist.
- ⇒ The pharmacists can be called -on-duty by rotation so as to offer round the clock services.

#### ④ Outstanding services to local Retail pharmacy store:

\* All other general conditions for dispensing narcotics are applicable to the dispensing of narcotics to out-patients

### Dispensing During off Hours

various methods are considered, where by a hospital pharmacy may provide a 24 hour pharmacy service and supply drugs during emergency.

#### ① Authorising physicians and nurses:-

physician may enter the pharmacy and obtain any special medication not provided through the floor stocks, night cabinets or emergency boxes. However, this act should be recorded.

Evening and nights nursing supervisors may enter the pharmacy and are authorised to pick up limited number of drugs. But, this method is dangerous and illegal.

⇒ nurses should not compound any prescription they may pickup only pre-labelled items.

⇒ It is comparable to dispensing from nursing cabinets.

Emergency boxes and night drug



Principal  
AVANTI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guntur (V), Abulapurmet (M)  
R.R. Di. Tangana.

\* All other general conditions for dispensing narcotics are applicable to the dispensing of narcotics to out-patients

### Dispensing During off Hours

various methods are considered, where by a hospital pharmacy may provide a 24 hour pharmacy service and supply drugs during emergency.

#### ① Authorising physicians and nurses:-

physician may enter the pharmacy and obtain any special medication not provided through the floor stocks, night cabinets or emergency boxes. However, this act should be recorded.

Evening and nights nursing supervisors may enter the pharmacy and are authorised to pick up limited number of drugs. But, this method is dangerous and illegal.

⇒ nurses should not compound any prescription. They may pickup only the prelabelled and pre packaged items.

⇒ It is comparable to dispensing from nursing cabinets.

#### ② Use of Emergency Boxes and night drug

\* The doctor should not write prescription for narcotic for his own use.

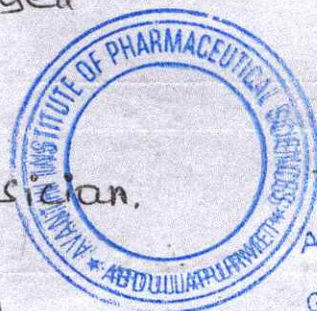
\* Narcotics obtained for ward use should not be issued to home use by the patients on discharge.

\* These are all the procedures followed in majority of the hospitals, but may have additional or varied conditions in a few hospitals.

### ③ Dispensing to out patients:-

⇒ The prescription for narcotic to outpatients must contain the following information:

- (a) patient's full name.
- (b) patient's Address
- (c) Hospital number
- (d) Date
- (e) name and strength of the drug
- (f) quantity to be dispensed
- (g) Directions for use.
- (h) signature of the physician.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M)  
R.R. Dist. Telangana.

\* The prescription must be written in ink and must not bear any correction.

\* Narcotics should not be dispensed for more than one day's use, unless prescribed specifically by the physician.

\* Hence, the copy of prescription should be written for narcotics, inpatients, along with the usual prescription written on the case sheet by the treating physician.

A document recording patient medical history  
\* This separate prescription must be complete in all aspects as described above and sent to the dispensary.

\* The drugs supplied are kept under "lock and key" by the "ward nurse" and administered to the patient as per the directions written on the case sheet.

\* A pro re nata (prn) <sup>Some times</sup> (occasionally) or si opus sit (SOS) (whenever necessary) prescriptions for narcotics must be discouraged except under special circumstances.

\* The doctor may give orders by telephone in case of necessity.

\* Then the nurse writes the order on the doctor's prescription sheet, stating that it is a telephone order.

\* The nurse has to write the doctor name and put her own initials.

\* The doctor must then sign the order within 24 hours.

\* Similarly a doctor may give verbal <sup>direct communication</sup> order for narcotic drugs in an extreme emergency, where time does not permit writing the order.

\* The nurse must write the order on prescription and sign it within

⇒ The Dispensing process:

- \* Step - 1: Receive and validate. AS soon as you receive the prescription, you need to validate it
- \* Step - 2: understanding the prescription
- \* Step - 3: Label and prepare the medication
- \* Step - 4: Final check
- \* Step - 5: Record your work
- \* Step - 6: Delivery and patient consultation.

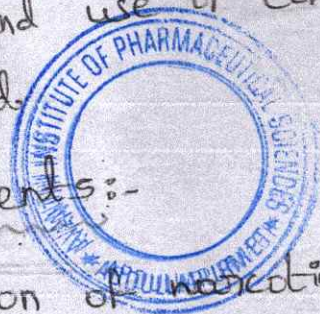
\* Hospital procedure for dispensing narcotics:-

① Responsibility for narcotics in the hospital :-

- \* In general the administrative head of the hospital is responsible for proper safe guarding and handling of narcotics within the hospital.
- \* Chief pharmacist is responsible for purchase, storage and maintenance of account and proper dispensing of narcotics in particular.
- \* Similarly head nurse of a ward is responsible for the proper storage and use of controlled substances (narcotics) in the ward.

Dispensing to inpatients:-

The administration of narcotic drugs to the patients is by the nurse, and these drugs are not directly to the patient for self administration. Control over its use, compar



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## Drug - Dispensing

\* Def<sup>n</sup>:- Dispensing refers to the process of preparing and giving medicine to a named person on the basis of a prescription.

⇒ It involves the correct interpretation of the wishes of the prescriber and the accurate preparation and labelling of medicine for use by the patient.

\* Role of Dispenser:-

⇒ Dispensers assist with the preparation and supply of medication to patients.

⇒ Dispensing medication to patients safely and in accordance with regulations.

⇒ Disposal of returned medication.

\* Responsibility of pharmacy in dispensing:-

⇒ The basic duty of a pharmacist is to check prescriptions from physicians before dispensing the medication to the patient to ensure that the patients don't receive the wrong drugs or take an incorrect dose of medicine.

⇒ The sale of drugs to the patients may be subdivided further based upon the patient's ability to pay or the employment status if they are employed by the hospital.

★ For example, The patient can be of the following type

- 1) Those who pay fully.
- 2) Those who pay partly.
- 3) Those who cannot pay at all.
- 4) physicians (not paying).
- 5) General employee.

## ② The Expense Accounts:-

Expense accounts in general may be divided into following categories:

- 1) Administration and general.
- 2) professional care of the patients.
- 3) out-patients and emergency.
- 4) Miscellaneous expenses.

PRINCIPAL  
AVANTH! INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



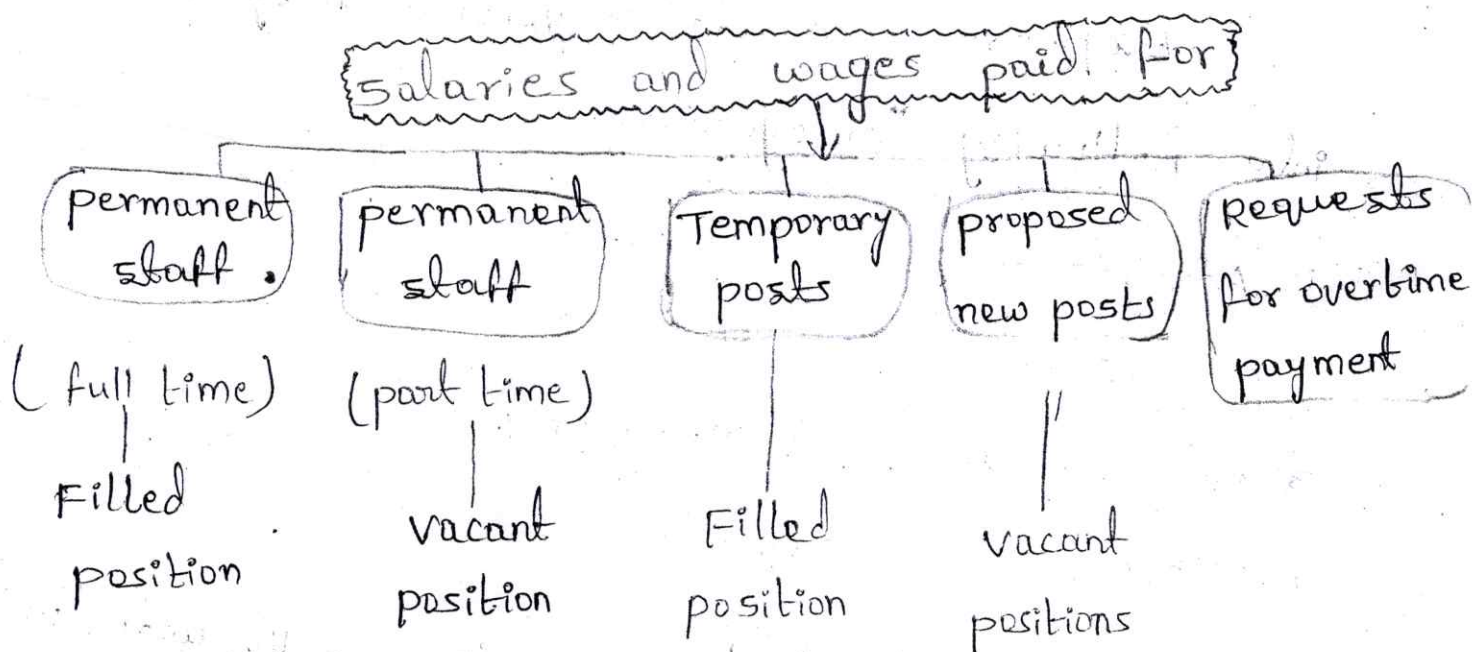
⇒ The department of pharmacy is normally listed under the category of professional care of the patient. For accounts purpose a suitable code number is given to these categories.

- (a) salaries and wages
- (b) supplies and expenses
- (c) Drugs and pharmaceutical Expenses
- (d) purchase services
- (e) Miscellaneous supplies and Expenses.

### (a) Salaries and wages :-

⇒ This includes salaries and wages of...

- i) pharmacists
- ii) Assistants
- iii) clerks and
- iv) others



⇒ The pharmacist (chief) should sub divided all posts into further three categories viz.

\* Administrative

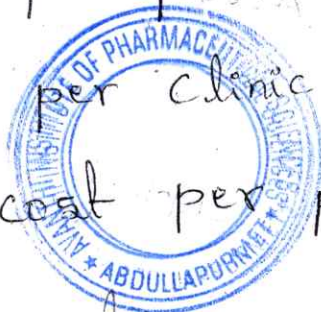
service as well as to special services departments.

⇒ This total, when added to that obtained from the processing of patient prescriptions and requisitions, represents the true income of the department.

\* Following statistics are of value in assisting the management to accurately predict the volume of activity of the department of pharmacy.

They are:

- (a) Number of prescriptions according to the sub-categories described earlier.
- (b) Number of prescriptions dispensed by each pharmacist.
- (c) Hours of work put in.
- (d) prescription volume per hour of service.
- (e) medication cost per patient day.
- (f) medication cost per clinic visit.
- (g) Average drug cost per prescription.
- (h) Average salary cost per prescription.
- (i) Average supply cost per requisition.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

⇒ enhance efficiency of staffs and others.

### \* Disadvantages of Budget:-

⇒ It is time consuming and expensive.

⇒ There is danger of over budgeting; the budget becomes cumbersome, meaningless and expensive.

⇒ Forecasting is required but uncertain because budgetary control is subject to human judgment, interpretation and evaluation.

⇒ Skill and experience are required for successful budgetary control.

⇒ It converts all aspects of organizational performance into monetary value for a single comparable unit of measurement.

★ ★ Types of budget: ① short-term budget (2-5 yrs) or 2 yrs. ② Long-term budget (5-10 yrs)

### Division of Budget

⇒ Every budget consists of

(1) Income Accounts

(2) Expenditure Accounts and

(3) Asking for capital investments

(Equipment and construction Budget)

① Income (or revenue) Accounts:-

|| method for determining the income

(V) sizing the granulation by dry screening

(vi) Lubrication

(vii) compression.

(1) Mixing:-

⇒ firstly we have to weigh the required amount of API and all excipients.

⇒ now these excipients such as diluents, and half amount disintegrating agent are mixed with API through blender (V. cone blender)

(2) preparing a damp mass:-

now in this mixture we have to add a sol<sup>n</sup> of binder make a damp mass.

(3) Wet screening:-

now this damp mass is screened using sieve with the hand or suitable equipments and forms granules.

(4) Drying:-

now these wet granules are dried in hot air oven (60°C adjust).

(5) Dry screening:-

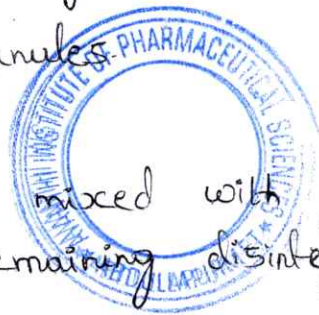
After drying these granules are screened through a sieve to get uniform size granules.

(6) Lubrication:-

⇒ now these granules mixed with glident then add lubricant.  
⇒ And also add remaining disintegrants.

(7) Compression:-

⇒ now compress this granules into desired punching machine to proper shape and size to the tablet.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# Formulation of Tablet

Date .....

Page No. ....

\* Tablet are mfgd by granulation technique. which can be carried out by following 3 methods.

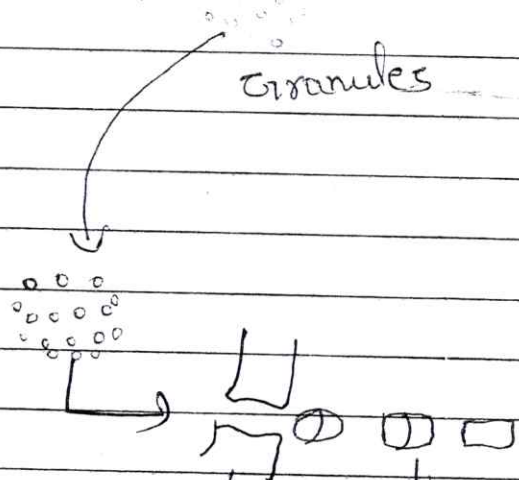
\* Tablet are compressed solid unit dosage form. which contains medicament with or without excipients.

- ① wet granulation
- ② Dry granulation
- ③ Direct compression

\* Granulation:- It is a process in which fine powders of drugs are converted into small granules.  $\Rightarrow$  which are further used to prepare tablets.

+ Excipients Binder

↓  
powder of drugs  
(small / fine)



① wet granulation method:- In this process, we use binder in wet form. punching machine. Tablet

\* The steps required for this:-

- ① Mixing of API & excipients
- ② preparing a damp mass using binder solution
- ③ screening - granulation
- ④ Drying.

\* wet form granulation:-

API + excipients

↓  
mixture

↓ binder soln  
damp mass

↑  
wet granules

↑  
Screening

↑  
Drying By hot air

↑  
even bed  
Screening



↑  
punching machine. Tablet

Teacher's Signature: +

↑  
Lubricant  
gliders

### 5 Mixing $\rightarrow$ (Lubricant & disintegrating agents) $\rightarrow$

now add remaining amount of lubricants and also add gli and disintegrating agent to granules and mixed it into blend

### 6 Compression:-

now compress these granules into desired punching machine give proper shape and size to the tablet and produce tablet.

### ★ Advantages:-

- ① suitable for moisture and heat sensitive materials
- ② require less equipment
- ③ Better disintegration.
- ④ no heat or solvent are required

### ★ Disadvantages:-

- ① create more dust than wet granulation
- ② expensive

### ③ Direct Compression: Method:-

$\Rightarrow$  In this process drug powder materials is directly compressed into tablet.

$\Rightarrow$  This process is suitable for those drug substance which has good excipients  $\rightarrow$  compressible and flow property.



(Double cone blender)

compress  $\rightarrow$  Tablet.

$\Rightarrow$  now firstly weight the API (medicament) and excipients such as diluents and disintegrants.

$\Rightarrow$  Then mixed and prepare tablet through compression.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

## ② Dry granulation / double compression

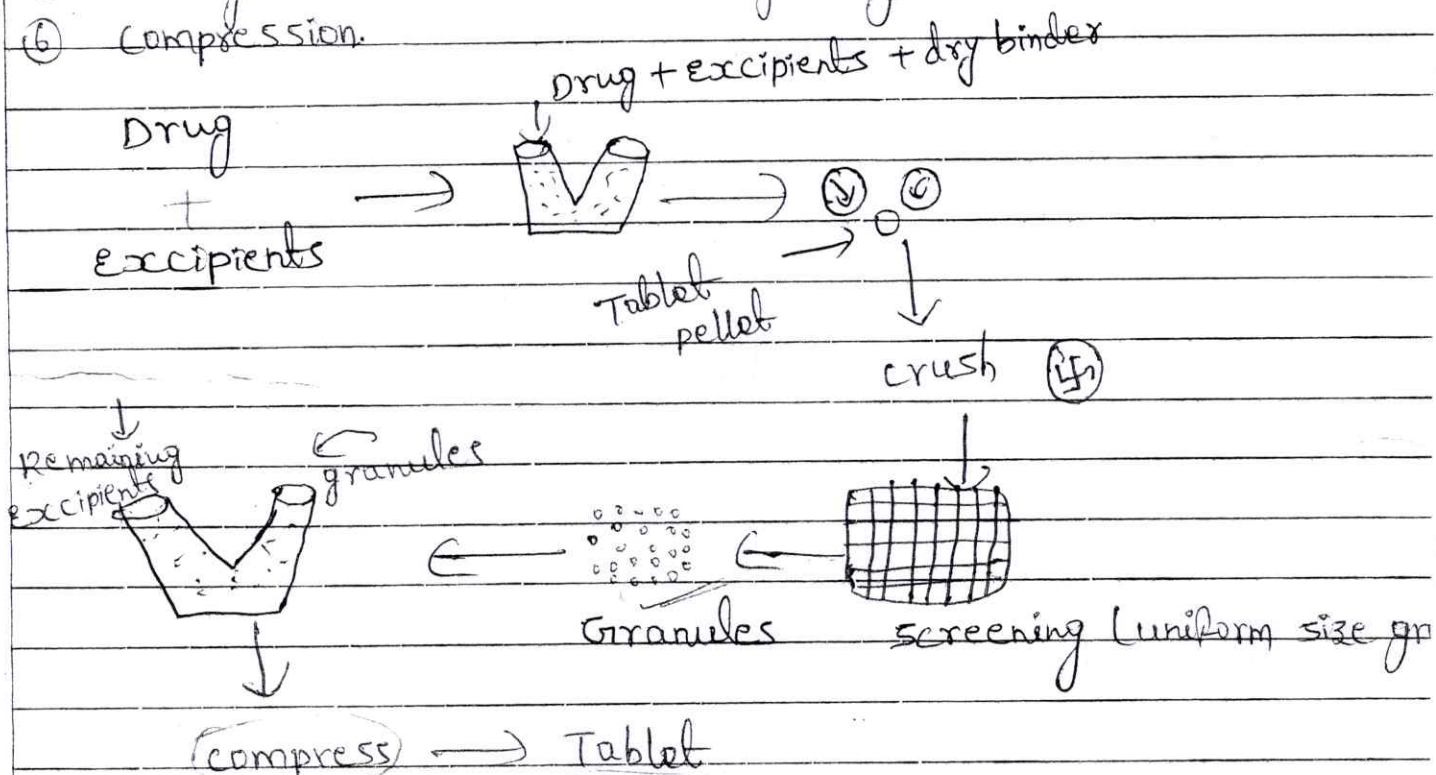
Date .....

In this process we use binder in dry form

Page No. ....

\* The steps require for this:-

- ① Mixing
- ② Slugging (1st compression)
- ③ crushing (breaking)
- ④ screening
- ⑤ mixing (lubricant, disintegrating)
- ⑥ compression.



① Mixing:-

\* Firstly weigh the desired (required) amount of API all Excipients.

\* Now add these excipients with API and also add half amount of lubricant with dry binder solution.

② Slugging:-

Now these mixture are compressed in large flat table (pellets) known as "slug".

③ Crushing:-

Now these slugs agains breaks into small particles using

④ Screening:-

Now these small particles screened to produce uniform size particles.

Teacher's Signature :

(b) comparison of actual results

identifying deviations.

(c) subsequent analysis of deviations to determine whether they are controllable or uncontrollable.

⇒ In India the usual budget proposals are annual in time period. There may also be long range developmental duration (3-5 years).

⇒ our country is not yet ready to form a condition of business, where industry, labour, insurance and health care - associations organize a "voluntary - Efforts to curtail the health care costs."

⇒ There is inadequate budget provisions for the health care programmes by central or the state governments, Ministry of Health and Family welfare make very little provisions in their annual budgets.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Guntur (V), Andhra Pradesh (M)  
R. R. Raju, Talangana

⇒ develop better financial planning.

⇒ Gives a better focus on decision making to the management.

⇒ effectively manage the financial aspects of

Unit - II

The Budget - preparation and Implementation

\* "Budget":- is described as an instrument through which hospital administration, management at the departmental levels, and the governing board can review the hospital's services in relationship to a prepared plan in a comprehensive and integral form expressed in financial terms.

⇒ one of the most important task of the pharmacy department of a hospital is to prepare the annual budget on a sound basis taking into account all important factors of income and expenditure.

⇒ Each and every departmental budget must be accurately prepared and furnished.

⇒ properly developed and used budget should have the following goals of:

(a) Development of standard of performance

replacement of equipment  
(III) (4) construction of building Equipment and construction Budget :-

⇒ In hospitals where providing the funds for the <sup>devaluation</sup> depreciation of a physical plant and equipment is in <sup>depreciation is to</sup> <sup>in distinct/uncertain</sup> vague, the actual cost for replacing,


repairing or remodelling is usually readily available

⇒ In such hospital, where providing necessary fund for maintenance and repairs of machinery and equipment and of construction, exists, these problems arise and a major monetary burden arises and therefore, a suitable separate budget may be provided.

⇒ List of Life period in years of Depreciable Machinery and equipment.

\* It is a common matter, for budgeting for machinery equipment both professional and administrative ones, to take into account their depreciation values.



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

⇒ In our country, the chief hospital pharmacist has to fix their life in years in consultation with their manufacturers and/or suppliers who <sup>single</sup> alone can furnish or guarantee their serviceability in terms of years as this factor depends upon workmanship, quality control factors of the item under question.

\* Following is a suggested list of items for which life periods may be <sup>discovered</sup> <sup>ascertained</sup> and fixed which may be utilized by the <sup>approved</sup> Budgeting Authorities.

### ★ Professional equipments:-

- 1) Balance
- 2) Cabinets, (metal, wooden)
- 3) water distillation stills,
- 4) Mixing tanks,
- 5) stirrers,
- 6) metallic filters,
- 7) homogenisers,
- 8) capsulating machines
- 9) tablets, manufacturing equipment etc.  
granulators, punching machines, mixers etc

## \* To communicate Decisions made By PTC:

- ✓ use policy
- ✓ revising drug formulary
- ✓ ADR monitoring programmes
- ✓ Drug product defect reporting programmes
- ✓ Drug utilisation review

## \* Layout for News letter:

- ✓ selection of the title
- ✓ contents of the news letter
- ✓ Format and printing
- ✓ Distribution
- ✓ Advantages.

### ① selection of the Title:-

- ✓ The title should be specific (clear) & unique
- ✓ ex:- Title like pharmacy review, pharmacy news bulletin, and pharma times

### ② contents of the news letter:

- ✓ editorial column
- ✓ new drug selection
- ✓ Abstract
- ✓ medical staff
- ✓ new discoveries & delivery systems



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

### ③ Format and printing:-

- ✓ structure of bulletin varies with organisation of pharmacist
- ✓ The publication is printed in royal 8000 paper

## © Hospital pharmacy communication - News Letter

\* Definition := newsletter is a bulletin issued periodical to the member of society, business or organisation (HOSPITALS).

### \* Aims :=

- ✓ For the transmission of information.
- ✓ To communicate the decisions made by the PTC.

### \* For Transmission of Information :=

- ✓ Latest information in medical sciences.
- ✓ newly introduced drugs.
- ✓ newly introduced indications.
- ✓ new drug delivery systems.
- ✓ update on drug interactions & ADR's.
- ✓ Drug therapy guideline development.
- ✓ medication safety information / precautions.

⇒ Information to physicians, nurses and other nursing staff for public relations.

The balance being supplied directly to the patient.

### iii) pharmacy - controlled patient issue system:

⇒ Based on direct patient issue.

⇒ In this systems, the drugs are issued to the patient rather than the ward and can be classed as unit dose system.

⇒ The unit-dose system is where each dose is delivered by the pharmacy.

### Drug - Distribution system

#### ① out - patient department (o.p.d) :-

\* out-patient refers to patient not occupying beds in a hospital, clinics, health centers.

\* The patient with minor and common illness go to o.p. for consultation to the physician.

\* The prescription written by the physician is brought to the pharmacist for compounding & dispensing.

Hospitals generally break down their out-patient into 4 categories:

① Emergency;

② Referral or tertiary care

③ primary care; and

④ Ambulatory.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# Drug - Distribution in Hospitals

Date .....

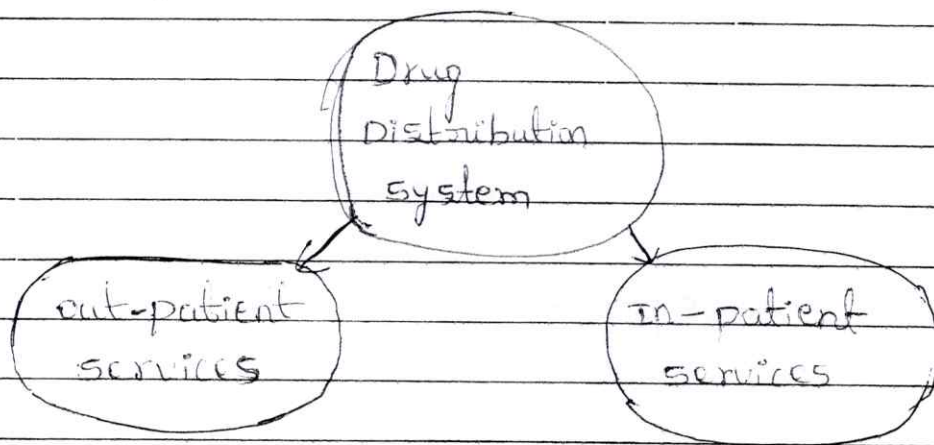
Page No. ....

★ Defn :- physical transfer of drugs from storage area in the hospital to patients.

Drug distribution is one of the basic service provided by the hospital pharmacy.

Drug distribution system falls into 3 categories.

- (i) ward-controlled system
- (ii) pharmacy controlled imprest based system
- (iii) pharmacy controlled patient issue system.



## ① ward-controlled systems:-

It may be "ward basket" system which occurs where the ward writes an order to pharmacy for all drugs it anticipates over a particular time period for two or 3 days.

⇒ The pharmacy then assembles the order & sends it to the ward without seeing the original in-patient medication orders written by physician.

⇒ Such systems are rarely seen in public hospitals with a pharmacy department.

## ② pharmacy-controlled imprest-based system:-

⇒ It is commonly used. In such systems, a defined range of drugs are available in each ward & is managed by pharmacy staff.

⇒ Traditionally, such systems have accounted for the distribution of 70% to 80% of in-patient drugs.

Teacher's Signature :

① Emergency outpatient :-

A person given emergency or accidental care for conditions which require immediate medical attention.

② Referred out-patient :-

He is referred directly to outpatient department by his attending medical/dental practitioner for specific treatment other than an emergency treatment.

③ Primary care :- is majority care. It describes a range of services adequate for meeting the great majority of daily personal health needs.

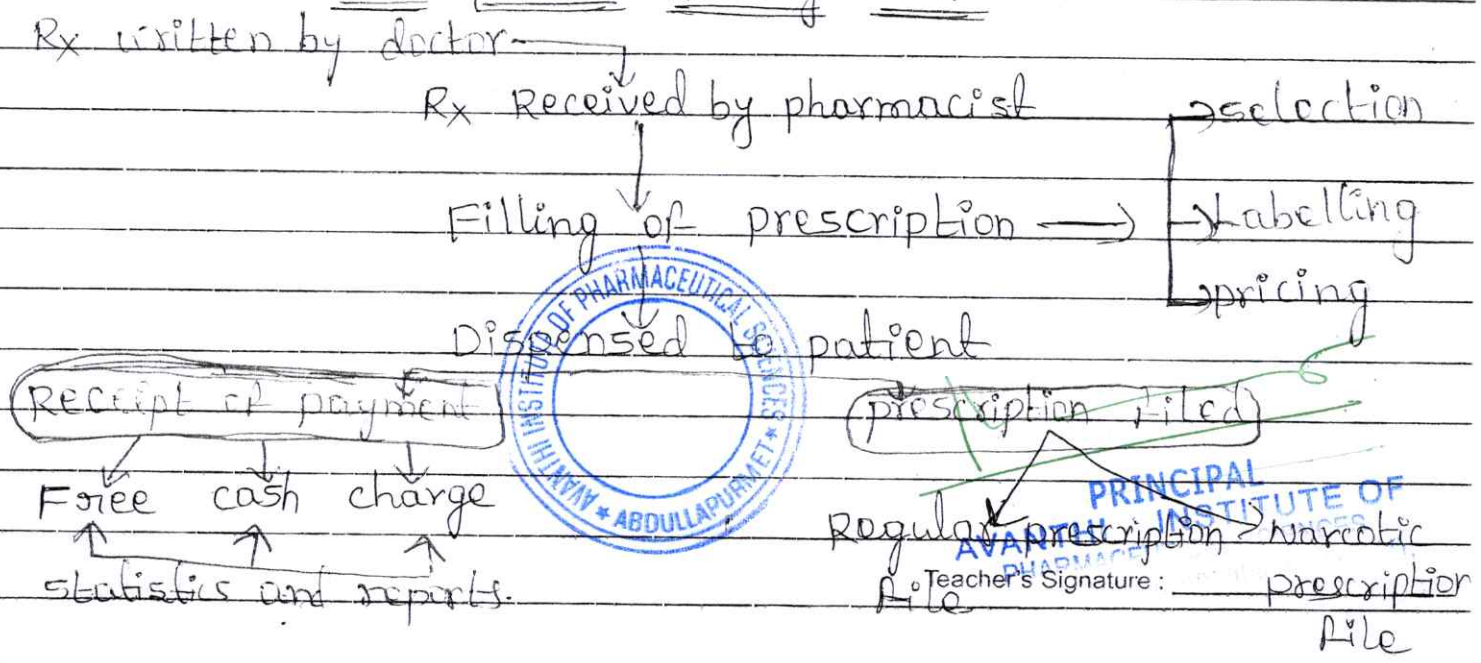
→ This majority includes the need for prevention, health maintenance & for evaluation & management of various symptoms, problems and chronic aspects of disease.

→ After surgery or medical treatment, a patient <sup>be unable to walk</sup> <sup>unassisted</sup>.

④ Ambulatory patient :- is able to walk and since out patients receive primary health care and walk off, they are wrongly called ambulatory patients.

→ However, majority of the outpatients are ambulatory.

Out-patient Activity chart.



In-patient services: These people can occupy beds in Hps.

⇒ The drug distribution to the in-patient department can be carried out from the outpatient dispensing area.

⇒ The staff involved in dispensing the drugs for out-patient can dispense drugs for in-patients too.

• If the work load seems to be heavy then additional personnel can be employed.

#### 4 systems For In-patient Drug Distribution

① Individual prescription order system

② complete floor stock system

③ combination of 1 and 2

④ unit dose dispensing method

① Individual prescription order system:-

This system is mainly used in small or private hospitals because of its economic consideration and ↓ed manpower requirements.

#### \* Advantages:-

⇒ All medication orders are directly reviewed by pharmacist

⇒ It provides closer liaison among pharmacist, physician, nurse and the patient.

⇒ It provides closer control of inventory.

## (A) Dispensing of charge Floor stock Drugs:-

- \* These are drugs for which patient is charged for every single dose administered to him.
- \* Selection of these drugs is made by (PTC) <sup>→ It says safe & effective use of drug products</sup> pharmacy & Therapeutic committees
- \* charge floor stock drugs are stored at various nursing stations.
- \* An envelope is used to dispense such drugs.  
(or)  
Trainer

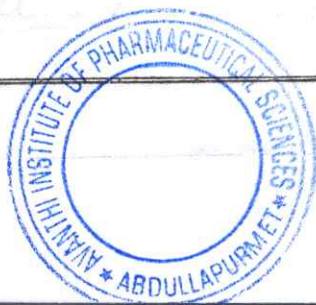
## (B) Dispensing of Non-charge Floor stock Drugs:-

- \* These are medicaments placed at the nursing station for the use of all patients on the floor.
- \* Drug basket method → is adopted where nurses check the medicines in all rooms & in the refrigerator & prepare a masterlist for the pharmacy.
- \* Mobile Dispensary unit:-

- ① It is a specially constructed stainless steel truck.
- ② It measures 60 inches high, 48 inches wide and 25 inches deep.

## (3) Combinations of individual Drug order and Floor stock system:-

It is a type of drug distribution system that uses individual prescription ~~or~~ medication order system as their primary means of dispensing but have several drugs in the floor stock.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

### \* Disadvantages:-

- ① There may be possible delay in obtaining the required medications for administration into the patient.
- ② ↑se in the cost to the patient.

### ② Complete Floor Stock System:-

- \* Drugs are stored at the nursing ~~and~~ station and are administered by a nurse according to the chart order of the physician.
- \* only commonly used drugs are stored on the floor.

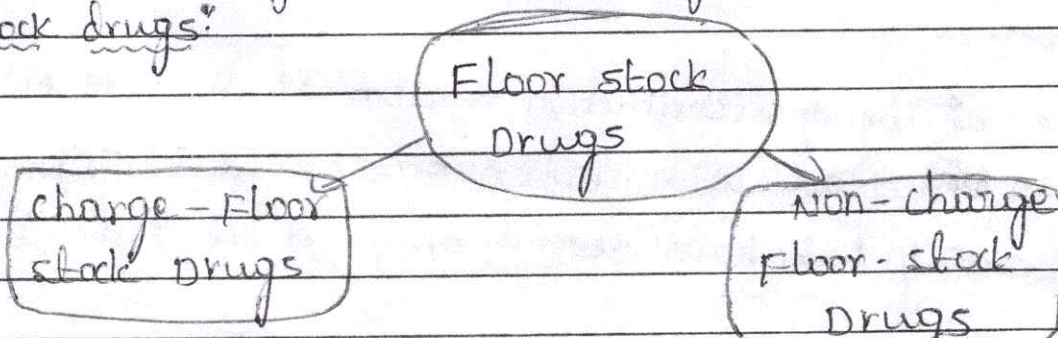
### \* Advantages:-

- ① The drugs are readily available for administration.
- ② Minimum return of drugs.
- ③ ↓ced in-patient prescription orders
- ④ Reduction in number of pharmacy ~~probs~~ personal required.

### \* Disadvantages:-

- ① ↑se in chance of medication errors.
- ② ↑se in drug inventory → drug
- ③ ↑se chances of drug deterioration due to lack of proper storage facilities and due to unnoticed drug degradation
- ④ ↑sed workload on nurses. due to medication activities.

The drugs on the nursing station are known as 'Floor-stock drugs'.



Teacher's Signature : \_\_\_\_\_

④ Unit Dose Dispensing:- (Ready to administer to the patients)  
 unit dose medication is defined as those medications which are ordered, packaged, handled, administered and charged in multiples of single doses units containing predetermined amount of drugs or supply sufficient for one regular dose application or use.

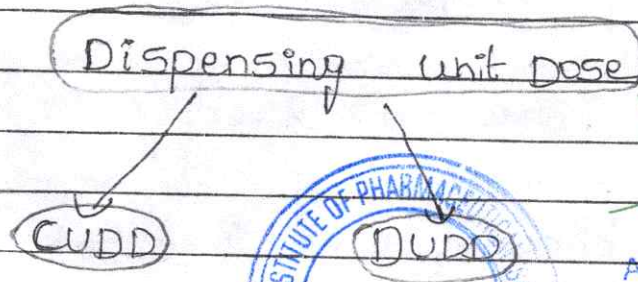
Ex: 1 tablet, 1 capsule.

### \* Advantages:-

- ⇒ patient receives improved services and charged for only those doses are administered.
- ⇒ Nurse get more time for direct patient care.
- ⇒ medication errors are less because ⇒ Administer unit dose.
- ⇒ More space is available in nursing station by eliminating bulky floor stock.
- ⇒ It eliminates wastage of drug and pilferages ⇒ stock stored.
- ⇒ Contamination due to handling is eliminated.

### \* Disadvantages:-

- ① It requires more space since packaging material uses the bulk of the dosage forms.
- ② It requires used number of skilled and lay personnel in the pharmacy.
- ③ The cost of medication is used to the patient due to used handling charges.



PRINCIPAL  
 AVANTHI INSTITUTE OF  
 PHARMACEUTICAL SCIENCES  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

Teacher's Signature: \_\_\_\_\_

### ① Centralised unit dose dispensing (CUD) :-

- \* All inpatient drugs are dispensed in unit doses and all the drugs are stored in central area of the pharmacy and dispensed at the time the dose is due to be given to the patient.
- \* To operate the system, delivery devices such as medication carts or pneumatic tubes are required.

### ② Decentralised unit dose Drug Distribution system:-

- \* This operates through small satellite pharmacies located on each floor of the hospital.
- \* The main pharmacy is for procurement, storage, manufacturing and packing.

#### \* procedure:-

- ① patient profile card containing full date, disease, diagnosis, is prepared.
- ② prescriptions are sent directly to the pharmacist which are then entered in the patient profile card.

- 1) pharmacist checks medication order for allergies, drug interactions, drug laboratory test etc.
- 2) Dosage schedule is made and coordinated with nursing personnel.
- 3) patient profile card and prescription order is filled by pharmacy technicians.
- 4) pharmacist then checks cart prior to its release.
- 5) The nurses administer the drugs and make the entry in their records.
- 6) upon return to the pharmacy the cart is rechecked.

#### \* Dispensing of control Drug:-

- \* These drugs should kept under "lock and key".
- \* A separate register should be maintained to register them.

#### \* procedure:-

- 1) medical superintendent is overall responsible for handling of controlled drugs.
- 2) chief pharmacist procures, stores and <sup>proper</sup> dispense the drugs.
- 3) prescription of narcotic drugs under narcotics and psychotropic substance act 1985 must include following information.
  - a) patient Full name.
  - b) Address
  - c) date
  - d) name and strength of drug
  - e) quantity of drug.
  - f) signature of prescriber
  - g) dose and route of administration



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

Teacher's Signature : \_\_\_\_\_

- 3) If the required drug is not in the stock the complete controlled drug prescription must be written on hospital prescription blank form by registered medical practitioner and signed.
- 4) Delivery of narcotic drugs from pharmacy to wards should be carried out by reliable person. (you can trust to work)
- 5) After dispensing, nurses resume responsibility for administration control and auditing of the inventory.   
 inspecting stock list
- 6) If patient refuse or doctor cancels any dose, nurse should destroy the drug in to sink and record "Refused by patient" or "cancelled by doctor."

\* Dangerous drugs → opium derivatives

morphine, pethidine

\* ~~Barbiturates~~ & non-barbiturates



Schedule - X - Cosmetic Act - 1940

- ① Develop and conduct relevant continuing education programmes for hospital staff, concerning antimicrobial drug products and their use.
- ② Encourage the use of single package of sterile products in place of multiple dose containers.
- ③ work with the microbiology laboratory to improve microbiological sensitivity screening tests and the reporting of their results.

Through participating in these and other activities, pharmacists can help take the problems of hospital-associated infections to the lowest possible level.

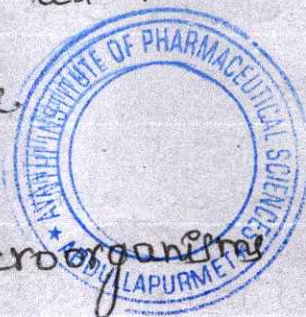
## Sterilization

### Introduction, objectives and classification

Sterilization is process that eliminates, removes kills or deactivates all forms of life, microorganisms, spores etc.

⇒ The growth of microorganisms can be controlled by two basic ways:

① either by killing the microorganisms. Cidal process



✓  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

⇒ Microbes can be eliminated, killed or inactivated by various physical and chemical methods.

⇒ several terms used to describe the physical processes and chemical agents.

① Sterilization:- It is a process by which an article, surface, or medium is freed of all living organisms including microbes & spores.

② Disinfection:- process of destruction or removal of microorganisms capable of producing an infection.

③ Disinfectants:- chemicals that kill vegetative microorganisms. These chemicals employed only on non-living objects like, floors, buildings, equipments.

④ Antisepsis / Antiseptic:- Destruction or inhibition of microbes in living tissues, thereby preventing harmful effects of infection is called Anti-sepsis. And agents which produce antisepsis is called Antiseptic.

⑤ Sanitization:- It is the process of cleaning pathogenic micro-organisms from public eating, utensils & objects.

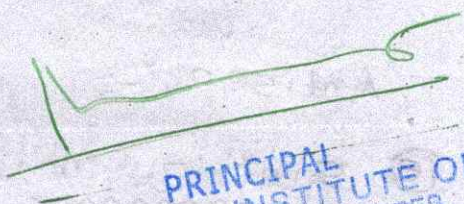
⑥ Sterile:- material that has been heated or treated so that it contains no living organisms.

## ★ Objectives of sterilization :-

The main reasons or aim for controlling microbes are:-

- Ⓐ To prevent contamination of sterile products.
- Ⓑ To prevent transmission of pathogenic microorganisms like Corona virus, T.B, Leprosy bacteria etc.
- Ⓒ To prevent decomposition & spoilage of food & food products like milk, bread, jam etc.
- Ⓓ To prevent unwanted microbial contamination in antibiotics, pharmaceuticals, enzymes, vitamins, fermentation & other industrial processes.
- Ⓔ To prevent contamination in aseptic areas which are used for the preparation of sterile dosage forms & sterility testing.
- Ⓕ To prevent contamination of unwanted microbes in pure cultures and other microbiological experiments.



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

## Methods of sterilization

physical methods      chemical methods      mechanical methods

① physical methods:- The various physical methods are:

① Dry heat sterilization:- Sunlight, Red heat, flaming, Hot air oven, Incineration etc.

② Moist heat sterilization:- vaccine bath, pasteurization, Inspissation, Boiling, steam under normal pressure, steam under high pressure (Autoclave).

③ Radiation:- uv-rays, x-rays,  $\gamma$ -rays,  $\beta$ -rays etc.

② chemical methods:- Following are chemical methods:

① Gaseous:- Formaldehydes, ethylene oxides,  $\beta$ -propiolactone.

② Liquids:- Alcohols, Aldehydes, phenols, Halogens, Heavy metals, surfactants, dyes etc.

③ Mechanical methods:- Generally it includes filtration of following types.

① Asbestos filters: Seitz Filter

② Sintered glass filters: Mordant Filter

③ Filter candles: Ceramic or Berkefeld Filter

④ Membrane filters: millipore or ultra filter

Sterilization:- is the complete removal of microorganisms from an object or surfaces.

## \* Physical Methods of Sterilization:-

Involves processes by the use of physical means.

These involve the heat in presence ~~of~~ absence of moisture or radiations.

### 1) Heat Sterilization:-

Most reliable method of sterilization of objects that can withstand heat.

⇒ Common method used in hospitals & labs to thermo-stable products.

⇒ we use moisture sensitive materials for dry heat (160 - 180°C) sterilization, & moist heat 121°C - 134°C for others.

### \* Advantages:-

① low cost

② very effective sterilization methods

③ most common & easy methods.

### \* Disadvantages:-

① sometimes not absolute sterilization

② thermally unstable media



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

Heat sterilization  $\rightarrow$  Moist heat

### (A) Dry Heat Sterilization:-

\* Principle:- It uses high temp (T) to kill microbes & bacterial spores and is used on item that cannot get wet and for glass-ware, oils, powders, metal instruments etc.

$\Rightarrow$  Dry heat causes denaturation of proteins and oxidative damage.

\* Thermal death time (TDT):- minimum time required to kill a suspension of microbes at a predetermined temp (T) at a specific environment.

### \* Types of Dry heat sterilization:-

(i) Red Heat:- used to sterilize metallic objects by holding them on a flame till they are heated red hot.

$\Rightarrow$  Inoculation wires, loops, forcep points & spatulas are sterilized by this method.

(ii) Flaming:- little different from red heat, articles passed over flame without allowing it to become red hot. (passed over flame 3-4 times)

$\Rightarrow$  mouth of culture tubes, glass slides, scalpels, etc sterilized by this method.

## Central - sterile supply services

### ★ Introduction:

The central sterile supply services (CSSS) are those services within the hospital which process, is and control professional supplies and equipments, both, sterile and non-sterile, to all the departments.

⇒ Many hospitals have a CSSS department but they usually managed by the surgeon-in-charge of the operation theatre, or by the head of the anaesthesia.

⇒ In some hospitals, these functions are carried out by technicians and nursing staff attached to the operation theatres.

⇒ The CSSS department is an extremely important part of the service group within the hospital.

⇒ Traditionally, it was apart of the surgical operation suite, because most of the sterile supplies were used there.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

operation theatre, out-patient  
casualty are the main blocks requiring sterile-  
materials, such as the following:

- \* Different surgical instruments
- \* Catheters → flexible tube used to deliver fluids into/withdraw fluids from the body.
- \* Suction tube → used to clear liquids & slurries are drawn out.
- \* Injection syringes of different size
- \* Lint, <sup>measured</sup> gauze, cotton wool and dressings  
a soft fleecy material.
- \* Linen dresses and aprons for operation theatre
- \* Hand surgical gloves
- \* Tongue depressor and tongue holding forceps  
thin piece of wood that is rounded at both ends.
- \* Nasal and Aural speculae  
an instrument inserted into a body passage especially to facilitate visual inspection or medicat<sup>n</sup>.
- \* Umbilical tapes
- \* Surgical sutures and needles

### \* Central sterile supply department (CSSD) :-

\* Def<sup>n</sup> :- The central sterile supply department is the service responsible for receiving, storing, processing, distributing and controlling the professional supplies & equipments (both sterile and non-sterile) for all user units of hospital for the care & safety of the patient & quality control.

-on techniques.

⇒ The management of central sterile services is under the control of nursing staff.

And a trained pharmacist is more suitable to maintain sterilization of equipment and preparation of intravenous fluids.

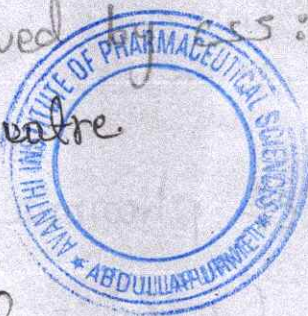
★ Objectives of CSS :-

- ① To maintain supply of sterile equipments to operating theatre.
- ② Cleaning and sterilization of all hospital supplies.
- ③ To contribute in educational programs.
- ④ To provide sterile gowns, caps, mask and hand gloves during operations.
- ⑤ To develop cost-effective programme by cost analysis, personal supplies and equipment.

★ Department served by CSS :-

- ① operating theatre
- ② Nursing.
- ③ Recovery room.
- ④ Out patient department or clinic
- ⑤ Intensive surgical care.

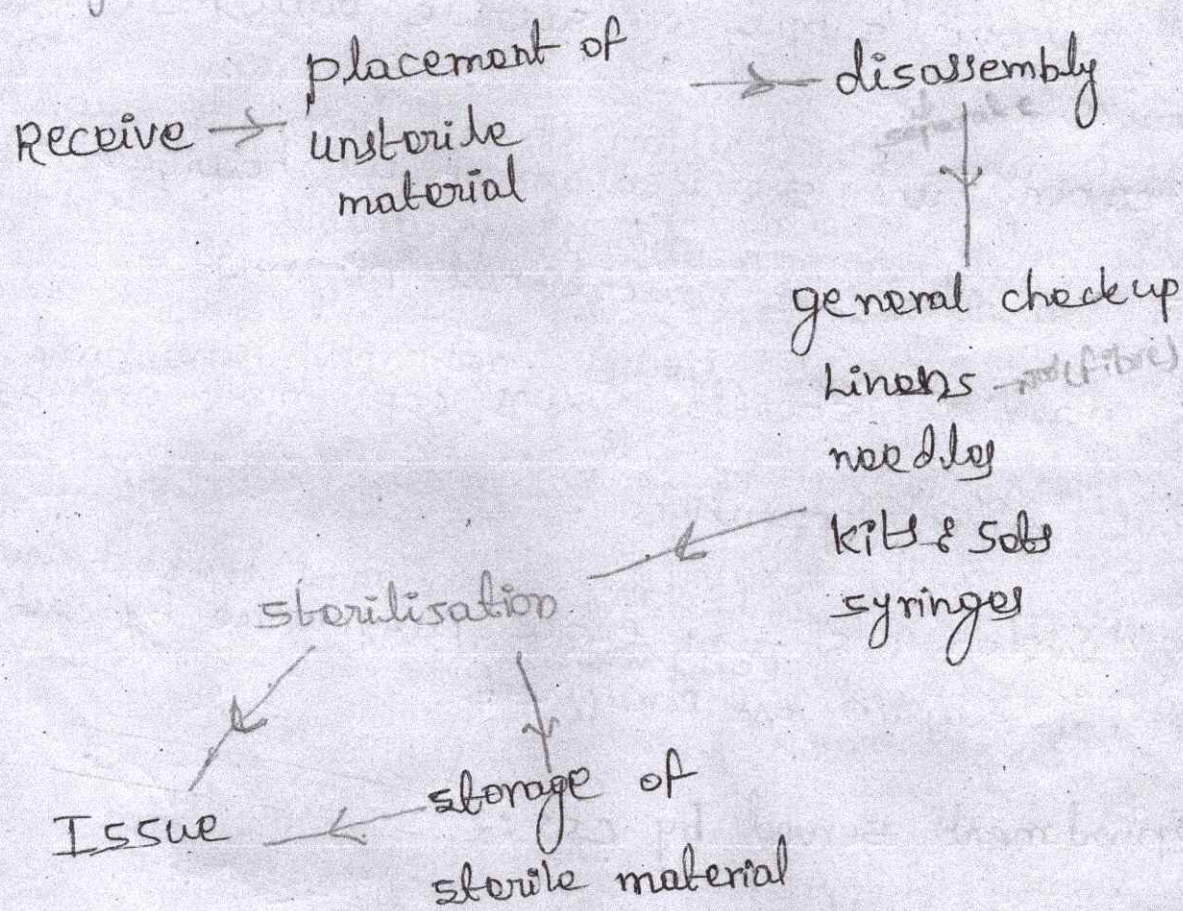
↓  
provide treatment & monitoring for people who are very ill.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

- ⇒ It should be located near the operation
- ⇒ It should be located in such a way that most rapid transport of materials is possible.
- ⇒ The department should have capacity to expand itself if the hospital grows in future.
- ⇒ It should be located near the pharmacy department to have a better administrative control.

### ★ Layout of central sterile services:-



### ★ Functions / Role of pharmacist in central sterile services (CSS):-

- ① purchasing and receiving hospital supplies and equipment.
- ②

- (iv) maintenance and purchasing, distribution, etc
- (v) standardization and microbial testing of sterilized products should be done.
- (vi) Interacting with other professionals in health care team.
- (vii) Adjustment of trays for better handling.

\* Various Administrative patterns of central services (CSC):-

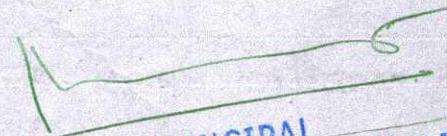
① Nursing services:-

A nurse should be the head of this department as majority of items are used by nurses & patient.

② Pharmacist services:-

pharmacist also performs important functions ex:- procurement, storage, distribution of supplies and preparations of various sterile solutions.



  
**PRINCIPAL**  
 AVANTHI INSTITUTE OF  
 PHARMACEUTICAL SCIENCES  
 Gunthapally (V), Abdullahpurmet (M),  
 R.R. Dist. Telangana.

## ★ Functions

- ① It involves cleansing, packaging, sterilising and distributing the sterile supplies.
- ② The plan for locating these activities centrally, is based on the fact that storage and distribution of sterile goods can be handled carefully, along with other supplies of the hospital & that processing can be done quite satisfactorily by pharmacy personnel.
- ③ In earlier days, majority of the items used in the hospitals were made up of reusable material & they were sterilised and supplied by the CSS receiving and distribution (CSSRD) Department.
- ④ nowadays with the advent of plastic & many disposable items, like syringes, tubings, urine collection sets, intravenous administration sets, needles & gloves, CSS functions to dispense and distribute these items centrally.
- ⑤ CSS is also responsible for cleaning, storage and dispensing of specialised equipments such as suction pumps, cardiac catheters, surgical dressing coats etc.
- ⑥ In earlier days a CSSD was started as an equipment wash room with autoclaving facilities.  
now modern product line techniques are in use, with automatic control recording devices, to ensure sterility.
- ⑦ modern washing, drying and powdering equipments

the hospital

- (i) Receiving and cleaning of equipments
- (ii) Glove processing.
- (iii) Handling of surgical instruments like needles and syringes, their cleaning and sterilisation.
- (iv) cleaning of rubber tubings and catheters.
- (v) sterilisation and preparation of surgical dressings.
- (vi) sterile storage of surgical instruments.
- (vii) non-sterile storage of specific equipments that require cleaning up after end use, ex = respirators and special orthopedic devices.
- (viii) Issue of all supplies.

Functional plan of central sterile supply Department

Ambulatory patient department

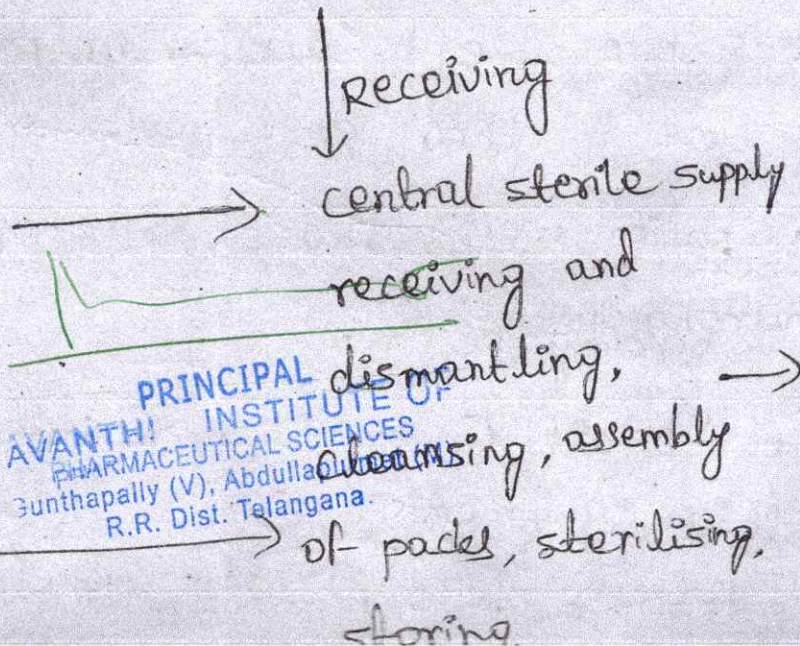
Emergency

patient care departments/wards

operating surgical department

New surgical items from central stores

Linens from laundry



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet  
R.R. Dist. Telangana.

## \* Advantages of CSSD :-

CSSD ensures efficiency, economy and safety of sterilisation and distribution operations within the hospital

⇒ In a hospital, in the past, autoclaves were placed on different floors & in the operating rooms

⇒ There were no trained and allotted individuals who could operate and take responsibility for all the sterilisers on different floors

⇒ The establishment of CSSD was beneficial due to reasons given below:

- ① CSSD ↓ risk of infections due to efficient sterilisation of the items under expert supervision. It prevents any defective autoclaving practices.
- ② It ↓ risk of recontamination due to efficient packing of surgical products.
- ③ Contamination by the personnel who come in direct contact with the patients and may be carriers of pathogens is also prevented as there is separate staff at CSSD.
- ④ Nurses are able to look after patients by devoting more time to their well-being and care rather than to sterilisation work. Thus, CSSD improves the efficiency of the nursing personnel.
- ⑤ CSSD also brings down capital cost & maintenance cost of sterilising equipments.
- ⑥ CSSD prevents the duplication of sterilisation equipments.

① Cleaning of containers, closures and Equipments:-

\* All the container closures and equipments

↓  
requires in preparation of parenterals thoroughly  
cleaned with detergent and tap water

↓  
cleaned with distilled water and

↓  
Finally rinsed with water for injection.

\* Rubber closures are washed with hot solution of 0.5%  
sodium pyrophosphate in water

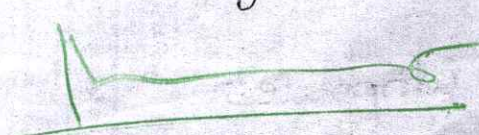
↓  
removed from solution, washed with water

↓  
rinsed with water for injection.

In small scale → done manually

In large scale → automatic washing machines



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## ② Collection of materials:-

- \* Required quantity of ingredients for formulation weighed and collected in preparation room.  
(raw material should be pure)

\* water for injection should be free from → pyrogen  
micro-organism

## ③ Preparation of parenteral product:-

- \* The pharmacist should decide → order of mixing and exact method of preparation
- \* The parenteral preparation must be prepared under  
↓  
strict aseptic conditions

## ④ Filtration:-

- \* The parenteral solutions so formed is pass through a bacteria proof filter.

↓  
Filter candle, seitz filter, membrane filter  
sintered glass filter  
↓

Objective is to clarify solution.

- \* If parenteral preparation → require sterilization by bacteria proof filter so

↓  
Filtration should be done in strict aseptic condition

## ⑤ Filling the preparation in final containers:-

Filtered product is filled into final containers

In small scale - manually by syringe and needle.

In large scale - automatic filling machine

sterile powders - by individual weighing or by automatic or semi automatic machine

\* The filling operation done under → strict aseptic precautions.

⑥ Sealing the containers :-

\* sealing should be done immediately after filling

⇒ Ampoules are sealed manually by rotating neck of ampoule in flame of burner.

⇒ In large scale ampoules sealing machine is used

↓  
to fuse ampoule tip.

⇒ vials and transfusion bottles are sealed by

↓  
closing with rubber closures

↓  
crimping the aluminium caps.

⑦ Sterilization :-

parenteral preparation should be immediately sterilized after sealing in final container.

↓  
Thermolabile medicament

↓  
Thermolabile medicament

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.B. Dist. Telangana.

hot air oven →

### ⑧ Labelling and packaging :-

\* After evaluation → ampoules, vials, and transfusion bottles are properly labelled and packed.

### ⑦ Quality control Tests of parenteral products :-

#### ① Leakage Test :-

① Method - I :- performed by immersing the ampoules in a vacuum chamber containing dye.  
exd 1% methylene blue solution)

↓  
a vacuum (about 27 inch Hg) created for about 15 to 30 min.

↓  
vacuum causes the dye solution enter into ampoules with defective sealing.

↓  
If solution in ampoules appear blue it confirms leakage

Detection of leakage is more effective when

↓  
ampoules are autoclaved with dye.

Advantage → detection of leakage & sterilization in a single operation.

② Method - II :- High frequency spark test → detects pin holes in the ampoules

The machine uses high <sup>exd</sup> precision electrodes

all product with higher voltage than ...  
value are separated.

## ② Clarity Test:-

This test is performed to detect  
presence of particulate matter in finished  
parenteral preparations  
prescribed limit according to I.P.

particle size	maximum number/ml
MT $\geq 10 \mu m$	50
$\geq 25 \mu m$	5
$\geq 50 \mu m$	Nil.

## ③ Visual method:-

Filled containers are examined by holding their  
neck against black & white back grounds

↓  
the containers are slowly rotated & inverted -  
and contents are examined for foreign particles.

## ④ Microscopic count method:-

A measured sample is filtered through  
membrane filter

↓  
Surface of filter is examined under microscope  
100x magnification

## ⑤ Light obstruction method:-

This method uses an electronic instrument that produces  
a high intensity light beam.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

due to obstruction of light by particles.



particles are measured and counted automatically by a shadow castings.

### ④ Coulter counter method:-

The sample solution is added to an electrolyte solution (Ex: NaCl)



drawn through small orifice of device



positive and negative electrode present on either side of orifice



as particle pass through orifice it displaces its own volume of electrolyte at same time



rise in resistance is observed and it is proportional to particle size.

### ③ Pyrogen Test:-

\* pyrogen are fever producing metabolic product of microorganisms.

\* pyrogens can cause → fever, platelet aggregation and alteration in blood coagulation  
↓  
produce shock even death.

① Rabbit Test:- Adult, either sex, weight not less than 1.5 kg rabbit is selected.

(Test carried out on a group of 3 rabbits)

\* Test procedure:- \* rabbit Normal temp (T) = 98°F (36.6°C) to 102°F (38.9°C)

Dissolve test substance or dilute it with pyrogen free saline (warm the soln to 38.5°C before injection)

↓  
insert a clinical thermometer into rectum of each rabbit  
record the temp. two times in 30 min interval

Then mean is calculated → Initial temp (T)

↓  
test soln is injected into ear vein of each rabbit.

(NLT 0.5 ml/kg & NMT 10 ml/kg)

↓  
record the temp (T) of each rabbit at an 30 min interval for 3 hours.

\* Results:- If response of all rabbit is LT 0.6°C and if sum response of 3 rabbits is not MT 1.4°C

↓  
then preparation pass the test.

⇒ If not pass

↓  
then same test is repeated on another set of 5 rabbits.

↓  
if not MT 3 out of 8 rabbits shows individual response of 0.6°C or more and if sum of response of rabbits is

NMT 3.7°C



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

## (b) Limulus Amebocyte Lysate (LAL) Test :-

\* The test based on formation of → gel or  
→ development of colour

↓  
in presence of bacterial endotoxins  
and lysate solution.

\* There are 3 types of LAL Test

↓  
Gel clot  
Test

↓  
Turbidimetric  
Test

↓  
kinetic  
chromogenic Test

### (i) Gel clot Test :-

The lysate sol<sup>n</sup> is mixed with equal volume of  
test sol<sup>n</sup> in a pyrogen free test tube

↓  
allowed to stand for about 60 min.

↓  
tube inverted for observation of formation of gel clot

↓  
if solid gel not formed

indicate absence of endotoxins.

↓  
solution pass the test.

### (ii) Turbidimetric Test :-

Test is based on measurement of colour change.

↓  
due to release of chromogenic chemical p-nitroanilide  
a by-product of clotting reaction during the LAL Test.

## B Moist Heat Sterilization:-

\* principle:- It is more efficient method for sterilization in comparison to dry heat.

⇒ It destroys microorganisms by irreversible ~~destru~~ denaturation of enzymes & structural proteins.

⇒ moist heat sterilization involves the use of steam in the range of  $121-134^{\circ}\text{C}$  (Ex: Autoclave).

⇒ steam under pressure is used to generate high temp needed for sterilization.

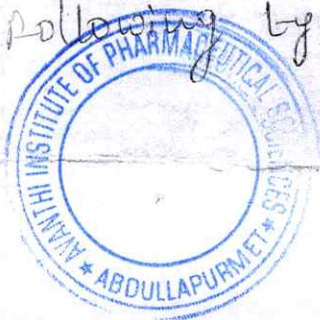
⇒ saturated steam acts as an effective sterilizing agent.

Moist Heat Sterilization

① Temp below  $100^{\circ}\text{C}$     ② Temp at  $100^{\circ}\text{C}$     ③ Temp above  $100^{\circ}\text{C}$

① Temp (LT) below  $100^{\circ}\text{C}$  :- Heat labile fluids may be sterilized by heating at below temp 10

⇒ This may be of following types with specific applications



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullahapurmet (M),  
R.R. Dist. Telangana.

by a specific water bath at  $60^{\circ}\text{C}$  for 1 hr. which kills most vegetative bacterial. (Ex: E. coli)

⑥ Pasteurization:- It is the process generally used for milk, milk is heated & cooled immediately.

⇒ pasteurization is done by 2 methods.

① Holder method:- Heating is done at  $62-8^{\circ}\text{C}$  for 30 minutes.

② Flash method:- Heating is done at  $71.7^{\circ}\text{C}$  for 15 to 20 seconds.

⇒ pasteurization kills non sporing microbes like mycobacteria, salmonella & Brucella.

⑦ Inspissation:- It is a heating process to solidify serum or eggs & not sterilization.

↓  
means thickening the plasma/serum by dehydration under high pressure.

However, if the process is repeated for 3 consecutive days some degree of sterilization achieved. (Fractional sterilization)

\* Applications of moist heat sterilization:-

⇒ used for surgical dressings, sheets, surgical & diagnostic equipments, glass wares, containers

injection etc.

# ★ Procurement And warehousing of Drugs & pharmaceuticals

procurement = purchase

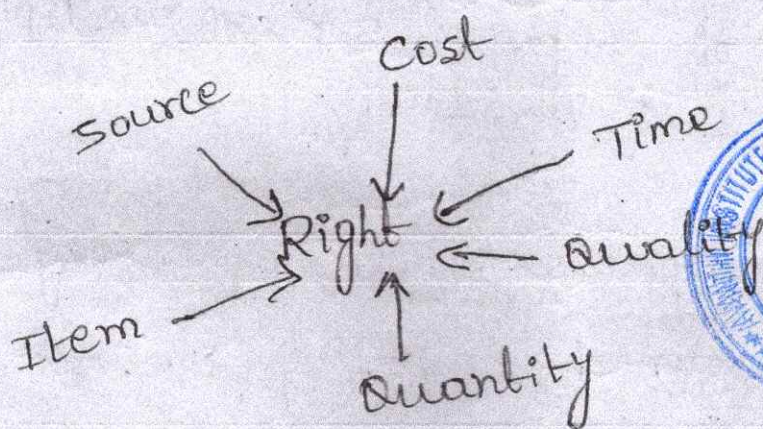
warehousing = storage.

## ★ Procurement:-

⇒ It is defined as a process of acquiring supplies through purchases from the manufacturers, their agents like distributors (or) from private or public suppliers.

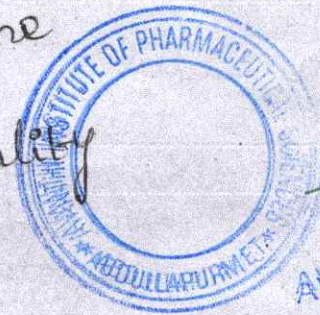
⇒ purchasing of medicines starts with the framing of buying policies and ends with receiving; stocking & payment.

## ★ Strategies of Procurement:-



① who should purchase drugs?  
purchasing agent or pharmacists.

## ★ Role of purchasing agent (or) officer in Drug Procurement:-



PRINCIPAL  
AVANTHI INSTITUTE  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapuram  
R.R. Dist. Telangana

⇒ selection of drugs and their quantities, purchase and storage in the pharmacy or a store room exclusively controlled by the pharmacist.

⇒ steps involved in purchasing drugs:

- ❖ purchase Request form.
- ❖ Quotation Invitation (or) Record form.
- ❖ purchase order form
- ❖ Return of Goods. ❖ out of stock form.

★ purchase procedure:-

Role of pharmacist in purchasing procedure:-

① purchase request form:-

- i) The pharmacist should prepare A purchase request form.
- ii) This form will have all details. The original form is send to the administrative office, incharge for the department, after approval, it is forward to the purchase department.
- iii) A duplicate copy is maintain in pharmacy.

② purchase order form:-

- iv) on receiving the form, purchase orders are prepared in multiple copies.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 02.03.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D I-YEAR I MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
06.03.2023/MON	HUMAN ANATOMY & PHYSIOLOGY
07.03.2023/TUES	PHARMACEUTICS
08.03.2023/WED	MEDICINAL BIOCHEMISTRY
09.03.2023/THUS	PHARMACEUTICAL INORGANIC CHEMISTRY
10.03.2023/FRI	PHARMACEUTICAL ORGANIC CHEMISTRY
11.03.2023/SAT	REMEDIAL MATHEMATICS

*P. Nagaraj*

EXAMINATION BRANCH

*Margula B*

HOD



*[Signature]*

PRINCIPAL

- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

- COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 16.03.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D I-YEAR IIMID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
20.06.2023/TUES	HUMAN ANATOMY & PHYSIOLOGY
21.06.2023/WED.	PHARMACEUTICS
22.06.2023/THUS	MEDICINAL BIOCHEMISTRY
23.06.2023/FRI	PHARMACEUTICAL INORGANIC CHEMISTRY
24.06.2023/SAT	PHARMACEUTICAL ORGANIC CHEMISTRY
26.06.2023/MON	REMEDIAL MATHEMATICS

*P. Nagaraju*  
EXAMINATION BRANCH

*Nanjula B*  
HOD

*[Signature]*  
PRINCIPAL

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 15.09.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D I-YEAR III MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
19.9.2023/TUES	HUMAN ANATOMY & PHYSIOLOGY
20.09.2023/WED	PHARMACEUTICS
21.09.2023/THUS	MEDICINAL BIOCHEMISTRY
22.09.2023/FRI	PHARMACEUTICAL INORGANIC CHEMISTRY
23.09.2023/SAT	PHARMACEUTICAL ORGANIC CHEMISTRY
25.09.2023/MON	REMEDIAL MATHEMATICS

  
EXAMINATION BRANCH

  
HOD

  
PRINCIPAL

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 26.01.23

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D II-YEAR I MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
30.01.2023/MON	PATHOPHYSIOLOGY
31.01.2023/TUES	PHARMACEUTICAL MICROBIOLOGY
01.02.2023/WED	PHARMACOGNOSY & PHYTOPHARMACEUTICALS
02.02.2023/THUS	PHARMACOLOGY-1
03.02.2023/FRI	COMMUNITY PHARMACY
04.02.2023/SAT	PHARMACOTHERAPEUTICS-1

*P. Nagaraj*  
EXAMINATION BRANCH

*Margda B.*  
HOD

*[Signature]*  
PRINCIPAL

- COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 27.04.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D II-YEAR II MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
01.05.2023/MON	PATHOPHYSIOLOGY
02.05.2023/TUE	PHARMACEUTICAL MICROBIOLOGY
03.05.2023/WED	PHARMACOGNOSY & PHYTOPHARMACEUTICALS
04.05.2023/THUS	PHARMACOLOGY-1
05.05.2023/FRI	COMMUNITY PHARMACY
06.05.2023/SAT	PHARMACOTHERAPEUTICS-1

*P. Nagaraj*  
EXAMINATION BRANCH

*Mangala B.*  
HOD

*[Signature]*  
PRINCIPAL

- COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 11.08.2023

## EXAMINATION BRANCH


### NOTICE TIME-TABLE PHARM D II-YEAR III MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
15.08.2023/TUES	PATHOPHYSIOLOGY
16.08.2023/WED	PHARMACEUTICAL MICROBIOLOGY
17.08.2023/THUS	PHARMACOGNOSY & PHYTOPHARMACEUTICALS
18.08.2023/FRI	PHARMACOLOGY-1
19.08.2023/SAT	COMMUNITY PHARMACY
21.08.2023/MON	PHARMACOTHERAPEUTICS-1

  
EXAMINATION BRANCH

  
HOD

  
PRINCIPAL

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 01.12.2022

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D III-YEAR I MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
05.12.2022/MON	PHARMACOLOGY-II
06.12.2022/TUES	PHARMACEUTICAL ANALYSIS
07.12.2022/WED	PHARMACOTHERAPEUTICS-II
08.12.2022/THUS	PHARMACEUTICAL JURISPRUDENCE
09.12.2022/FRI	MEDICINAL CHEMISTRY
10.12.2022/SAT	PHARMACEUTICAL FORMULATIONS

*P. Nagesh*  
EXAMINATION BRANCH

*Nagula B*  
HOD

*[Signature]*  
PRINCIPAL



- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 02.03.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D III-YEAR IIMID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
06.03.2023/MON	PHARMACOLOGY-II
07.03.2023/TUES	PHARMACEUTICAL ANALYSIS
08.03.2023/WED	PHARMACOTHERAPEUTICS-II
09.03.2023/THUS	PHARMACEUTICAL JURISPRUDENCE
10.03.2023/FRI	MEDICINAL CHEMISTRY
11.03.2023/SAT	PHARMACEUTICAL FORMULATIONS

*P. Nagaraju*  
EXAMINATION BRANCH

*[Signature]*  
HOD

*[Signature]*  
PRINCIPAL



COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS

- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 15.06.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D III-YEAR IIIMID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
19.06.2023/MON	PHARMACOLOGY-II
20.06.2023/TUES	PHARMACEUTICAL ANALYSIS
21.06.2023/WED	PHARMACOTHERAPEUTICS-II
22.06.2023/THUS	PHARMACEUTICAL JURISPRUDENCE
23.06.2023/FRI	MEDICINAL CHEMISTRY
24.06.2023/SAT	PHARMACEUTICAL FORMULATIONS

*P. Nagappa*  
EXAMINATION BRANCH

*[Signature]*  
HOD

*[Signature]*  
PRINCIPAL



- COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS

PRINCIPAL  
Avanathi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.




DATE: 22.09.2022

**EXAMINATION BRANCH  
NOTICE  
TIME-TABLE  
PHARM D IV-YEAR I MID EXAMINATIONS**

**Time: 1.30PM to 3.30 PM**

DATE & DAY	SUBJECT
26.09.2022/MON	PHARMACOTHERAPEUTICS-III
27.09.2022/TUE	HOSPITAL PHARMACY
28.09.2022/WED	CLINICAL PHARMACY
29.09.2022/THUS	BIOSTATISTICS & RESEARCH METHODOLOGY
30.09.2022/FRI	BIOPHARMACEUTICS & PHARMACO KINETICS
01.10.2022/SAT	CLINICAL TOXICOLOGY

  
**EXAMINATION BRANCH**

  
**HOD**

  
**PRINCIPAL**

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 29.01.2023

**EXAMINATION BRANCH  
NOTICE  
TIME-TABLE  
PHARM D IV-YEAR II MID EXAMINATIONS**

**Time: 1.30PM to 3.30 PM**

DATE & DAY	SUBJECT
02.01.2023/TUE	PHARMACOTHERAPEUTICS-III
03.01.2023/WED	HOSPITAL PHARMACY
04.01.2023/THU S	CLINICAL PHARMACY
05.01.2023/FRI	BIOSTATISTICS & RESEARCH METHODOLOGY
06.01.2023/SAT	BIOPHARMACEUTICS & PHARMACO KINETICS
08.01.2023/MON	CLINICAL TOXICOLOGY

*P. Nagaraju*  
**EXAMINATION BRANCH**

*[Signature]*  
**HOD**

*[Signature]*  
**PRINCIPAL**  
- PRINCIPAL

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 30.03.2023

**EXAMINATION BRANCH  
NOTICE  
TIME-TABLE  
PHARM D IV-YEAR III MID EXAMINATIONS**

**Time: 1.30PM to 3.30 PM**

DATE & DAY	SUBJECT
03.04.2023/WED	PHARMACOTHERAPEUTICS-III
04.04.2023/THU S	HOSPITAL PHARMACY
05.04.2023/FRI	CLINICAL PHARMACY
06.04.2023/SAT	BIOSTATISTICS & RESEARCH METHODOLOGY
08.04.2023/MON	BIOPHARMACEUTICS & PHARMACO KINETICS
09.04.2023/TUES	CLINICAL TOXICOLOGY

*P. Nagesh*  
**EXAMINATION BRANCH**

*[Signature]*  
**HOD**

*[Signature]*  
**PRINCIPAL**

- COPY TO:** 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



**PRINCIPAL**  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 22.09.2022

**EXAMINATION BRANCH  
NOTICE  
TIME-TABLE  
PHARM D V-YEAR I MID EXAMINATIONS**

**Time: 1.30PM to 3.30 PM**

DATE & DAY	SUBJECT
26.09.2022/MON	CLINICAL RESEARCH
27.09.2022/TUE	PHARMACOEPIDEMOLOGY & PHARMACOECONOMICS
28.09.2022/WED	CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC MONITORING

*P. Nagaraj*  
**EXAMINATION BRANCH**

*[Signature]*  
**HOD**

*[Signature]*  
**PRINCIPAL**  
- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS





# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 29.01.2023

**EXAMINATION BRANCH  
NOTICE  
TIME-TABLE  
PHARM D V-YEAR II MID EXAMINATIONS**

**Time: 1.30PM to 3.30 PM**

DATE & DAY	SUBJECT
02.01.2023/TUE	CLINICAL RESEARCH
03.01.2023/WED	PHARMACOEPIDEMOLOGY & PHARMACOECONOMICS
04.01.2023/THUS	CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC DRUG MONITORING

*P. Nagaraj*  
**EXAMINATION BRANCH**

*[Signature]*  
**HOD**

*[Signature]*  
**PRINCIPAL**

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE:30.03.2023

## EXAMINATION BRANCH

### NOTICE TIME-TABLE PHARM D V-YEAR III MID EXAMINATIONS

Time: 1.30PM to 3.30 PM

DATE & DAY	SUBJECT
03.04.2023/WED	CLINICAL RESEARCH
04.04.2023/THUS	PHARMACOEPIDEMOLOGY & PHARMACOECONOMICS
05.04.2023/FRI	CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC DRUG MONITORING

  
EXAMINATION BRANCH

  
HOD

  
PRINCIPAL

COPY TO: 1) PRINCIPAL  
2) ALL HODS  
3) ALL STUDENTS  
4) OFFICE  
5) NOTICE BOARDS



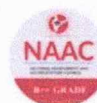
- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 26/10/2022

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B.Pharm I year II Sem II-Mid Examinations is scheduled to be conducted from 01.11.2022 to 04.11.2022. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Naqvi*  
EXAMINATION BRANCH

*M.R. Kish*  
HOD

*[Signature]*  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODS

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

*Committed to Excellence in Technical Education*

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD - 500085

EXAMINATION BRANCH

I YEAR B.PHARMACY II-SEMESTER- R17 REGULATION II - MID TERM EXAMINATIONS NOVEMBER-2022(IN OFFLINE MODE)

## T I M E T A B L E

TIME → FN: 9.40 AM TO 11.00 AM (DESCRIPTIVE EXAM: 9.40 AM TO 10.40 AM, OBJECTIVE EXAM: 10.40 AM TO 11.00 AM)  
AN: 1.40 PM TO 03.00 PM (DESCRIPTIVE EXAM: 1.40 PM TO 2.40 PM, OBJECTIVE EXAM: 2.40 PM TO 03.00 PM)

BRANCH	DATE, SESSION AND DAY				
	01-11-2022 FN TUESDAY	01-11-2022 AN TUESDAY	02-11-2022 FN WEDNESDAY	02-11-2022 AN WEDNESDAY	04-11-2022 FN FRIDAY
B.PHARMACY	HUMAN ANATOMY AND PHYSIOLOGY II	PHARMACEUTICAL ORGANIC CHEMISTRY I	BIOCHEMISTRY	PATHOPHYSIOLOGY	COMPUTER APPLICATIONS IN PHARMACY

DATE: 19-10-2022

Sd/-  
CONTROLLER OF EXAMINATIONS

NOTE:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY  
(ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATION SHALL BE CONDUCTED AS USUAL.



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 26/03/2023

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B.Pharm I year I Sem II-Mid Examinations is scheduled to be conducted from 31.03.2023 to 03.04.2023. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Nagaraj*  
EXAMINATION BRANCH

*M.R. Kishore*  
HOD

*[Signature]*  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

- 2) ALL HODs
- 3) ALL STUDENTS
- 4) OFFICE
- 5) NOTICE BOARDS



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

*Committed to Excellence in Technical Education*

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD – 500 085

## EXAMINATION BRANCH

### I YEAR B.PHARMACY- I SEMESTER- R22 REGULATION II - MID TERM EXAMINATIONS MARCH/APRIL-2023

#### TIMETABLE

TIME → FN: 9.40 AM TO 11.00 AM (DESCRIPTIVE EXAM: 9.40 AM TO 10.40 AM, OBJECTIVE EXAM: 10.40 AM TO 11.00 AM)

AN: 1.40 PM TO 03.00 PM (DESCRIPTIVE EXAM: 1.40 PM TO 2.40 PM, OBJECTIVE EXAM: 2.40 PM TO 03.00 PM)

BRANCH	31-03-2023 FN FRIDAY	31-03-2023 AN FRIDAY	01-04-2023 FN SATURDAY	01-04-2023 AN SATURDAY	03-04-2023 FN MONDAY	03-04-2023 AN MONDAY
B.PHARMACY I YEAR I SEM.	Remedial Biology	Human Anatomy and Physiology I	Pharmaceutical Analysis I	Pharmaceutical Inorganic Chemistry	Pharmaceutics	Communication skills
	Remedial Mathematics					


DATE: 28.03.2023

Sd/-  
CONTROLLER OF EXAMINATIONS

#### NOTE:

- ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.
- THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE QUESTION PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R22 REGULATION



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Sunthapally (V), Abdullahpurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 06/04/2023

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for III year II Sem I-Mid Examinations is scheduled to be conducted from 10.04.2022 to 12.04.2022. Please refer the enclosed copy of Examination time table given by the JNTUH.

P. Naqeeb

EXAMINATION BRANCH

M.R. Kish

HOD

PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODS

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**Committed to Excellence in Technical Education**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD  
KUKATPALLY - HYDERABAD – 500 085  
EXAMINATION BRANCH

**III YEAR B.PHARMACY- II SEMESTER– R17 REGULATION I - MID TERM EXAMINATIONS APRIL-2023**

TIME → FN: 9.40 AM TO 11.00 AM (DESCRIPTIVE EXAM: 9.40 AM TO 10.40 AM, OBJECTIVE EXAM: 10.40 AM TO 11.00 AM)  
AN: 1.40 PM TO 03.00 PM (DESCRIPTIVE EXAM: 1.40 PM TO 2.40 PM, OBJECTIVE EXAM: 2.40 PM TO 03.00 PM)

COURSE YEAR & SEM.	DATE & DAY				
	10-04-2023 FN MONDAY	10-04-2023 AN MONDAY	11-04-2023 FN TUESDAY	11-04-2023 AN TUESDAY	12-04-2023 FN WEDNESDAY
B.PHARMACY III YEAR II SEM.	Medicinal Chemistry - III	Pharmacology - III	Herbal Drug Technology	Biopharmaceutics and Pharmacokinetics	Open Elective - III
					Pharmaceutical Quality Assurance
					Pharmaceutical Biotechnology
					Bioinformatics
					Screening Methods in Pharmacology

Sd/-

DATE:28.03.2023

CONTROLLER OF EXAMINATIONS

Note:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- (ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL
- (iii) THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R17 REGULATION



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



DATE: 15/01/2023

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B.Pharm III year I Sem II-Mid Examinations is scheduled to be conducted from 19.01.2023 to 21.01.2023. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Nagaraju*  
EXAMINATION BRANCH

*M.R. Kiran*  
HOD

*[Signature]*  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

*Committed to Excellence in Technical Education*

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD – 500 085

EXAMINATION BRANCH

## III YEAR B.PHARMACY- I SEMESTER– R17 REGULATION II - MID TERM EXAMINATIONS JANUARY-2023

### REVISED TIMETABLE

TIME → FN: 9.40 AM TO 11.00 AM (DESCRIPTIVE EXAM: 9.40 AM TO 10.40 AM, OBJECTIVES EXAM: 10.40 AM TO 11.00 AM)

AN: 1.40 PM TO 03.00 PM (DESCRIPTIVE EXAM: 1.40 PM TO 2.40 PM, OBJECTIVE EXAM: 2.40 PM TO 03.00 PM)

BRANCH	19-01-2023 FN THURSDAY	19-01-2023 AN THURSDAY	20-01-2023 FN FRIDAY	20-01-2023 AN FRIDAY	21-01-2023 FN SATURDAY
B.PHARMACY III YEAR I SEM.	Medicinal Chemistry II	Industrial Pharmacy - I	Pharmacology II	Pharmacognosy and Phytochemistry - II	(Open Elective-I) Generic Product Development
					Green Chemistry
					Cell and Molecular Biology
					Cosmetic science

DATE:09.01.2023

Sd/-

CONTROLLER OF EXAMINATIONS

Note:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- (ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL
- (iii) THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R17 REGULATION



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.



DATE: 28/04/2022

Ref: AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

### CIRCULAR

This is to inform that for B.Pharm III year II Sem I-Mid Examinations is scheduled to be conducted from 02.05.2022 to 07.05.2022. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Nagayin*  
EXAMINATION BRANCH

*MR. Kish*  
HOD

*[Signature]*  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODS

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 26/04/2022

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B.Pharm IV year II Sem I-Mid Examinations is scheduled to be conducted from 02.05.2022 to 05.05.2022. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Nagaraj*  
EXAMINATION BRANCH

*M.R. Kiran*  
HOD

*[Signature]*  
PRINCIPAL

OIE

PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

COPY TO: 1) PRINCIPAL

2) ALL HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



**Committed to Excellence in Technical Education**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**

**III YEAR B.PHARMACY- II SEMESTER– R17 REGULATION I - MID TERM EXAMINATIONS MAY 2022-(IN OFFLINE MODE)**

TIME→ FN: 9.40 AM TO 11.00 AM (DESCRIPTIVE EXAM: 9.40 AM TO 10.40 AM, OBJECTIVE EXAM: 10.40 AM TO 11.00 AM)

AN: 1.40 PM TO 03.00 PM (DESCRIPTIVE EXAM: 1.40 PM TO 2.40 PM, OBJECTIVE EXAM: 2.40 PM TO 03.00 PM)

COURSE YEAR & SEM.	DATE & DAY				
	02-05-2022 FN MONDAY	02-05-2022 AN MONDAY	06-05-2022 FN FRIDAY	06-05-2022 AN FRIDAY	07-05-2022 FN SATURDAY
<b>B.PHARMACY III YEAR II SEM.</b>	Medicinal Chemistry - III	Pharmacology - III	Herbal Drug Technology	Biopharmaceuti cs and Pharmacokineti cs	<b>Open Elective - III</b>
					Pharmaceutical Quality Assurance
					Pharmaceutical Biotechnology
					Bioinformatics
					Screening Methods in Pharmacology

**IV YEAR B.PHARMACY II SEMESTER– R17 REGULATION I - MID TERM EXAMINATIONS MAY-2022-(IN OFFLINE MODE)**

TIME→ FN: 11.40 AM TO 1.00 PM (DESCRIPTIVE EXAM: 11.40 AM TO 12.40 PM, OBJECTIVE EXAM: 12.40 PM TO 1.00 PM)

AN: 3.40 PM TO 5.00 PM (DESCRIPTIVE EXAM: 3.40 PM TO 04.40 PM, OBJECTIVE EXAM: 4.40 PM TO 05.00 PM)

**T I M E T A B L E S**

COURSE YEAR & SEM.	DATE & DAY			
	02-05-2022 FN MONDAY	02-05-2022 AN MONDAY	05-05-2022 FN THURSDAY	05-05-2022 AN THURSDAY
<b>B.PHARMACY IV YEAR II SEM.</b>	Biostatistics and Research Methodology	Social and Preventive Pharmacy	Pharmaceutical Jurisprudence	<b>Elective -IV</b>
				Computer Aided Drug Design
				Nano Technology
				Experimental Pharmacology
				Advanced Instrumentation Techniques

DATE:20.04.2022

CONTROLLER OF EXAMINATIONS

Note:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY
- (ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL
- (iii) THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R17 REGULATION



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullahurmet (M),  
 R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 26/03/2022

Ref: AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B. Pharm IV year II Sem I-Mid Examinations is scheduled to be conducted from 01.04.2023 to 03.04.2023. Please refer the enclosed copy of Examination time table given by the JNTUH.

  
EXAMINATION BRANCH

  
HOD

  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

*Committed to Excellence in Technical Education*

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**

**IV YEAR B.PHARMACY II SEMESTER– R17 REGULATION I - MID TERM EXAMINATIONS APRIL-2023**

TIME→ FN: 11.40 AM TO 1.00 PM (DESCRIPTIVE EXAM: 11.40 AM TO 12.40 PM, OBJECTIVE EXAM:12.40 PM TO 1.00 PM)  
 AN: 3.40 PM TO 5.00 PM (DESCRIPTIVE EXAM: 3.40 PM TO 04. 40 PM, OBJECTIVE EXAM: 4.40 PM TO 05.00 PM)

**T I M E T A B L E S**

COURSE YEAR & SEM.	DATE & DAY			
	01-04-2023 FN SATURDAY	01-04-2023 AN SATURDAY	03-04-2023 FN MONDAY	03-04-2023 FN MONDAY
<b>B.PHARMACY IV YEAR II SEM.</b>	Biostatistics and Research Methodology	Social and Preventive Pharmacy	Pharmaceutical Jurisprudence	Elective -IV
				Computer Aided Drug Design
				Nano Technology
				Experimental Pharmacology
				Advanced Instrumentation Techniques

DATE:28.03.2023

Sd/-  
**CONTROLLER OF EXAMINATIONS**

Note:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- (ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL
- (iii) THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R17 REGULATION



11

**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 19/01/2023

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B.Pharm I year I Sem I-Mid Examinations is scheduled to be conducted from 23.01.2023 to 30.01.2023. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Nagaraja*  
EXAMINATION BRANCH

*M.R. Kiran*  
HOD

*[Signature]*  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

*Committed to Excellence in Technical Education*

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD – 500 085

EXAMINATION BRANCH

I YEAR B.PHARMACY- I SEMESTER- R22 REGULATION I - MID TERM EXAMINATIONS JANUARY-2023

TIMETABLE

TIME → FN: 10.00 AM TO 12.00 Noon

BRANCH	23-01-2023 MONDAY	24-01-2023 TUESDAY	25-01-2023 WEDNESDAY	27-01-2023 FRIDAY	28-01-2023 SATURDAY	30-01-2023 MONDAY
B.PHARMACY I YEAR I SEM.	Remedial Biology	Human Anatomy and Physiology I	Pharmaceutical Analysis I	Pharmaceutical Inorganic Chemistry	Pharmaceutics	Communication skills
	Remedial Mathematicss					

DATE: 20.01.2023

Sd/-  
CONTROLLER OF EXAMINATIONS

NOTE:

- ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.
- THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE QUESTION PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R22 REGULATION



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 19/01/2023

Ref:AIPS/Office/Circular/22-23

## EXAMINATION BRANCH

## CIRCULAR

This is to inform that for B. Pharm II year I Sem I -Mid Examinations is scheduled to be conducted from 23.01.2023 to 24.01.2023. Please refer the enclosed copy of Examination time table given by the JNTUH.

*P. Nagaraju*  
EXAMINATION BRANCH

*M.R.K. Kishore*  
HOD

*[Signature]*  
PRINCIPAL

OIE

COPY TO: 1) PRINCIPAL

2) ALL HODS

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

*Committed to Excellence in Technical Education*

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**  
**II YEAR B.PHARMACY - I SEMESTER– R17 REGULATION I - MID TERM EXAMINATIONS JANUARY-2023**  
**TIME TABLES**

TIME → FN: 9.40 AM TO 11.00 AM (DESCRIPTIVE EXAM: 9.40 AM TO 10.40 AM, OBJECTIVE EXAM: 10.40 AM TO 11.00 AM)  
AN: 1.40 PM TO 03.00 PM (DESCRIPTIVE EXAM: 1.40 PM TO 2.40 PM, OBJECTIVE EXAM: 2.40 PM TO 03.00 PM)

BRANCH	23-01-2023 FN MONDAY	23-01-2023 AN MONDAY	24-01-2023 FN TUESDAY	24-01-2023 AN TUESDAY
B.PHARMACY II YEAR I SEM.	Pharmaceutical Organic Chemistry – II	Physical Pharmaceutics-I	Pharmaceutical Microbiology	Pharmaceutical Engineering

DATE: 17.01.2023

Sd/-  
CONTROLLER OF EXAMINATIONS

Note: (I) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.  
(II) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL  
(III) READMITTED STUDENTS HAVE TO APPEAR FOR THE SUBSTITUTE SUBJECT(S) [WHICH IS/ARE NOT SHOWN IN THE TIME-TABLE] IN PLACE OF THE SUBJECT(S) ALREADY PASSED. FOR DETAILS OF SUBSTITUTE SUBJECTS REFER THE COMMUNICATIONS RECEIVED FROM THE DIRECTOR OF ACADEMIC & PLANNING.  
(III) THE PATTERN OF THE DESCRIPTIVE AND OBJECTIVE TYPE QUESTION PAPERS SHALL BE IN REGULAR PATTERN AS GIVEN IN R17 REGULATION



**AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Ref: AIPS/Office/Circular/22-23

DATE: 22.10.2022

## NOTICE

M.PHARM - I YEAR I SEM (2022-23)

### I-Mid Examinations TIME TABLE

DATE / Day	TIME	SUBJECT	
		Branch: Pharmaceutics	Branch: Pharmaceutical Analysis
26.10.2022 WED	11.00 AM to 12.30 PM	Modern Pharmaceutics-I	Modern Pharmaceutical Analytical Techniques
	2.00 PM to 3.30 PM	Applied Biopharmaceutics and Pharmacokinetics	Pharmaceutical and Food Analysis
27.10.2022 THUS	11.00 AM to 12.30 PM	Advanced Physical Pharmaceutics	Advanced Pharmaceutical Analysis
	2.00 PM to 3.30 PM	Pharmaceutical Validation	Pharmaceutical Validation
28.10.2022 FRI	11.00 AM to 12.30 PM	Research Methodology and IPR	Research Methodology and IPR
	-	-	-

**Note:** 1) Exams will be conducted by offline mode only as per JNTUH guidelines.

*P. Nagaraj*  
EXAMINATION BRANCH



*[Signature]*  
PRINCIPAL

COPY TO: 1) PRINCIPAL

2) HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS

PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**Committed to Excellence in Technical Education**



Ref: AIPS/Office/Circular/22-23

DATE: 02.06.2023

## NOTICE

M.PHARM - I YEAR I SEM (2022-23)

### II-Mid Examinations TIME TABLE

DATE / Day	TIME	SUBJECT	
		Branch: Pharmaceutics	Branch: Pharmaceutical Analysis
05.06.2023 MON	9.30 AM to 11.00 AM	Modern Pharmaceutics-II	Modern Pharmaceutical Analytical Techniques
	11.30 AM to 1.00 PM	Applied Biopharmaceutics and Pharmacokinetics	Pharmaceutical and Food Analysis
	2.00 PM to 3.30 PM	Advanced Physical Pharmaceutics	Advanced Pharmaceutical Analysis
06.06.2023 TUES	9.30 AM to 11.00 AM	Pharmaceutical Validation	Pharmaceutical Validation
	11.30 AM to 1.00 PM	Research Methodology and IPR	Research Methodology and IPR

**Note:** 1) Exams will be conducted by offline mode only as per JNTUH guidelines.

*P. Nageen*  
EXAMINATION BRANCH

COPY TO: 1) PRINCIPAL

2) HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



*[Signature]*  
PRINCIPAL

- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**Committed to Excellence in Technical Education**



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Ref: AIPS/Office/Circular/22-23

DATE: 14.12.2022

## NOTICE

**M.PHARM - II YEAR I SEM (2022-23)**  
**Pharmaceutics & Pharmaceutical Analysis**

### I-Mid Examinations TIME TABLE

DATE / Day	TIME	SUBJECT
17-12-2022 (Saturday)	10.30 AM to 12.00 PM	Scale-up and Technology Transfer
	12.10 PM to 1.40 PM	Cosmetic Science

**Note:** 1) Exams will be conducted by offline mode only as per JNTUH guidelines.

  
**EXAMINATION BRANCH**

COPY TO: 1) PRINCIPAL

2) HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



  
**PRINCIPAL**

- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**Committed to Excellence in Technical Education**



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

Ref: AIPS/Office/Circular/22-23



DATE: 13-02-2023

## NOTICE

**M.PHARM - II YEAR I SEM (2022-23)**  
**Pharmaceutics & Pharmaceutical Analysis**

### II-Mid Examinations TIME TABLE

DATE / Day	TIME	SUBJECT
17-02-2023 (THUS)	10.30 AM to 12.00 PM	Scale-up and Technology Transfer
	12.10 PM to 1.40 PM	Cosmetic Science

**Note:** 1) Exams will be conducted by offline mode only as per JNTUH guidelines.

*P. Nagaraj*  
EXAMINATION BRANCH

*[Signature]*  
PRINCIPAL

COPY TO: 1) PRINCIPAL

2) HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS



PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**Committed to Excellence in Technical Education**



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Ref: AIPS/Office/Circular/22-23

DATE: 24.03.2023

## NOTICE

M.PHARM - I YEAR II SEM (2022-23)

### I-Mid Examinations TIME TABLE

DATE / Day	TIME	SUBJECT	
		Branch: Pharmaceutics	Branch: Pharmaceutical Analysis
27.03.2023 MON	9.30 AM to 11.00 AM	Modern Pharmaceutics-II	Advanced instrumental analysis-1
	11.30 AM to 1.00 PM	Advanced drug delivery systems	Pharmaceutical quality control & quality assurance
	2.00 PM to 3.30 PM	Herbal cosmetics	Herbal cosmetics
28.03.2023 TUES	9.30 AM to 11.00 AM	Nutraceuticals	Nutraceuticals

**Note:** 1) Exams will be conducted by offline mode only as per JNTUH guidelines.

*P. Nagaraju*  
EXAMINATION BRANCH



COPY TO: 1) PRINCIPAL

2) HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS

*[Signature]*  
PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

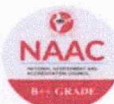
**Committed to Excellence in Technical Education**



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Ref: AIPS/Office/Circular/22-23

DATE: 05.03.2023

## NOTICE

M.PHARM - I YEAR II SEM (2022-23)

### II-Mid Examinations TIME TABLE

DATE / Day	TIME	SUBJECT	
		Branch: Pharmaceutics	Branch: Pharmaceutical Analysis
09.08.2023 WED	9.30 AM to 11.00 AM	Modern Pharmaceutics-II	Advanced instrumental analysis-1
	11.30 AM to 1.00 PM	Advanced drug delivery systems	Pharmaceutical quality control & quality assurance
	2.00 PM to 3.30 PM	Herbal cosmetics	Herbal cosmetics
10.08.2023 THUS	9.30 AM to 11.00 AM	Nutraceuticals	Nutraceuticals

**Note:** 1) Exams will be conducted by offline mode only as per JNTUH guidelines.

*P. Narasimha*  
EXAMINATION BRANCH



COPY TO: 1) PRINCIPAL

2) HODs

3) ALL STUDENTS

4) OFFICE

5) NOTICE BOARDS

*[Signature]*  
PRINCIPAL

- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.

**Committed to Excellence in Technical Education**



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**

**TIME-TABLE**

**PHARM D I-YEAR REGULAR AND SUPPLEMENTARY EXAMINATIONS**  
**OCTOBER -2022**

**Time: 09.45 AM to 12.45 PM**


DATE & DAY	SUBJECTS
13-10-2022 THURSDAY	HUMAN ANATOMY AND PHYSIOLOGY
15-10-2022 SATURDAY	PHARMACEUTICS
17-10-2022 MONDAY	MEDICINAL BIOCHEMISTRY
19-10-2022 WEDNESDAY	PHARMACEUTICAL ORGANIC CHEMISTRY
21-10-2022 FRIDAY	PHARMACEUTICAL INORGANIC CHEMISTRY
24-10-2022 MONDAY	REMEDIAL MATHEMATICS / BIOLOGY

**NOTE: ANY CLASHES / OMISSIONS IN THIS TIME-TABLE MAY BE BROUGHT TO THE NOTICE OF THE UNDERSIGNED.**

**Dt: 13-09-2022**

**Sd/-**  
**CONTROLLER OF EXAMINATIONS**



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
**Gunthapally (V), Abdullapurmet (M),**  
**R.R. Dist. Telangana.**



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**

**TIME-TABLE**

**PHARM D II-YEAR REGULAR AND SUPPLEMENTARY EXAMINATIONS**  
**AUGUST -2022**

**Time: 09.45 AM to 12.45 PM**

<b>DATE &amp; DAY</b>	<b>SUBJECTS</b>
22-08-2022 MONDAY	PATHOPHYSIOLOGY
24-08-2022 WEDNESDAY	PHARMACEUTICAL MICROBIOLOGY
26-08-2022 FRIDAY	PHARMACOGNOSY & PHYTOPHARMACEUTICALS
29-08-2022 MONDAY	PHARMACOLOGY – I
01-09-2022 THURSDAY	COMMUNITY PHARMACY
03-09-2022 SATURDAY	PHARMACOTHERAPEUTICS-I

- NOTE:** 1) ANY CLASHES / OMISSIONS IN THIS TIME-TABLE MAY BE BROUGHT TO THE NOTICE OF THE UNDERSIGNED.  
2) IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES THE EXAMS WILL BE CONDUCTED AS USUAL.



**Dt: 26-07-2022**

**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

**Sd/-**

**CONTROLLER OF EXAMINATIONS**



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD - 500 085**  
**EXAMINATION BRANCH**

**REVISED TIME-TABLE**

**PHARM D III-YEAR REGULAR AND SUPPLYMENTARY EXAMINATIONS**  
**JUNE -2022**

**Time: 09:45 AM to 12:45 PM**

<b>DATE &amp; DAY</b>	<b>SUBJECTS</b>
20-06-2022 MONDAY	PHARMACOLOGY – II
22-06-2022 WEDNESDAY	PHARMACEUTICAL ANALYSIS
24-06-2022 FRIDAY	PHARMACOTHERAPEUTICS - II
27-06-2022 MONDAY	PHARMACEUTICAL JURISPRUDENCE
29-06-2022 WEDNESDAY	MEDICINAL CHEMISTRY
01-07-2022 FRIDAY	PHARMACEUTICAL FORMULATIONS


**NOTE:** 1) ANY CLASHES / OMISSIONS IN THIS TIME-TABLE MAY BE BROUGHT TO THE NOTICE OF THE UNDERSIGNED.  
2) IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES THE EXAMS WILL BE CONDUCTED AS USUAL.

**DT: 19-05-2022**

**Sd/-**

**CONTROLLER OF EXAMINATIONS**



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**

**REVISED TIME-TABLE**

**PHARM D IV-YEAR REGULAR AND SUPPLEMENTARY EXAMINATIONS JUNE -2022**

**Time: 09:45 AM to 12:45 PM**

<b>DATE &amp; DAY</b>	<b>SUBJECTS</b>
21-06-2022 TUESDAY	PHARMACOTHERAPEUTICS-III
23-06-2022 THURSDAY	HOSPITAL PHARMACY
25-06-2022 SATURDAY	CLINICAL PHARMACY
28-06-2022 TUESDAY	BIostatISTICS & RESEARCH METHODOLOGY
30-06-2022 THURSDAY	BIOPHARMACEUTICS & PHARMACOKINETICS
02-07-2022 SATURDAY	CLINICAL TOXICOLOGY

**NOTE:** 1) ANY CLASHES / OMISSIONS IN THIS TIME-TABLE MAY BE BROUGHT TO THE NOTICE OF THE UNDERSIGNED.  
2) IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES THE EXAMS WILL BE CONDUCTED AS USUAL.

**DT: 19-05-2022**

**Sd/-**  
**CONTROLLER OF EXAMINATIONS**



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
**Gunthapally (V), Abdullapurmet (M),**  
**R.R. Dist. Telangana.**



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**KUKATPALLY - HYDERABAD – 500 085**  
**EXAMINATION BRANCH**

**REVISED TIME-TABLE**

**PHARM D V-YEAR REGULAR AND SUPPLEMENTARY EXAMINATIONS JUNE-2022**

**Time: 02:15 PM to 05:15 PM**


<b>DATE &amp; DAY</b>	<b>SUBJECTS</b>
20-06-2022 MONDAY	CLINICAL RESEARCH
22-06-2022 WEDNESDAY	PHARMACOEPIDEMIOLOGY & PHARMACOECONOMICS
24-06-2022 FRIDAY	CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC DRUG MONITORING

**NOTE:** 1) ANY CLASHES / OMISSIONS IN THIS TIME-TABLE MAY BE BROUGHT TO THE NOTICE OF THE UNDERSIGNED.  
2) IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES THE EXAMS WILL BE CONDUCTED AS USUAL.

**DT: 19-05-2022**

**Sd/-**  
**CONTROLLER OF EXAMINATIONS**



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
**Gunthapally (V), Abdullapurmet (M),**  
**R.R. Dist. Telangana.**

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD – 500085

EXAMINATION BRANCH

I YEAR B.PHARMACY I-SEMESTER-R22, R17, 16, R15, R13 REGULATION SUPPLEMENTARY EXAMINATIONS SEPTEMBER/OCTOBER-2023

## T I M E T A B L E

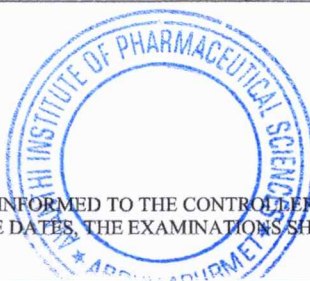
TIME → AN: 2.00 PM TO 5.00 PM

B.PHARMACY	Day & date	R22	R17	R16	R15	R13
	26-09-2023 Tuesday	Remedial Mathematics	Remedial Mathematics	Remedial Mathematics	Remedial Mathematics	Remedial Mathematics
		Remedial Biology	Remedial Biology	Remedial Biology	Remedial Biology	Remedial Biology
	29-09-2023 Friday	Human Anatomy and Physiology I	Human Anatomy and Physiology I	Dispensing and General Pharmacy	Dispensing and General Pharmacy	Dispensing and General Pharmacy
	03-10-2023 Tuesday	Pharmaceutical Analysis I	Pharmaceutical Analysis I	Anatomy, Physiology and Health Education – I	Pharm Inorganic Chemistry	Pharm Inorganic Chemistry
	05-10-2023 Thursday	Pharmaceutical Inorganic Chemistry	Pharmaceutics I	Pharmaceutical Organic Chemistry – I	Pharmaceutical Organic Chemistry – I	Pharmaceutical Organic Chemistry – I
	07-10-2023 Saturday	Pharmaceutics	Pharmaceutical Inorganic Chemistry-I	Professional Communication In English	Anatomy, Physiology and Health Education	Anatomy, Physiology and Health Education
	10-10-2023 Tuesday	Communication Skills	Communication Skills	--	English	English

DATE: 11-09-2023

NOTE:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.  
(ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.



Sd/-  
CONTROLLER OF EXAMINATIONS

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD – 500085

EXAMINATION BRANCH

I YEAR B.PHARMACY II-SEMESTER– R 22 , R17, 16 REGULATION REGULAR/ SUPPLEMENTARY EXAMINATIONS SEPTEMBER/OCTOBER-2023

## T I M E T A B L E

TIME→ AN:2.00 PM TO 5.00 PM

B.PHARMACY	Day & date	R22	R17	R16
	25-09-2023 MONDAY	HUMAN ANATOMY AND PHYSIOLOGY II	HUMAN ANATOMY AND PHYSIOLOGY II	PHARMACEUTICAL INORGANIC CHEMISTRY
	27-09-2023 WEDNESDAY	PHARMACEUTICAL ORGANIC CHEMISTRY-I	PHARMACEUTICAL ORGANIC CHEMISTRY I	PHARMACEUTICAL ORGANIC CHEMISTRY - II
	30-09-2023 SATURDAY	BIOCHEMISTRY	BIOCHEMISTRY	PHYSICAL PHARMACY - I
	04-10-2023 WEDNESDAY	PATHOPHYSIOLOGY	PATHOPHYSIOLOGY	STATISTICAL METHODS AND COMPUTER APPLICATIONS
	06-10-2023 FRIDAY	COMPUTER APPLICATIONS IN PHARMACY	COMPUTER APPLICATIONS IN PHARMACY	ANATOMY, PHYSIOLOGY AND HEALTH EDUCATION - II

DATE: 11-09-2023

NOTE:

IF ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.  
AND EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.



Sd/-  
CONTROLLER OF EXAMINATIONS

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY, HYDERABAD-500 085

EXAMINATION BRANCH

II YEAR B.PHARM - I SEMESTER –R17, R16, R15 , R13 REGULATIONS- REGULAR/SUPPLEMENTARY EXAMINATIONS APRIL/MAY-2023

## TIME TABLE

TIME :FN 10:00 AM TO 1:00 PM

DATE& DAY	R17	R16	R15	R13
17-04-2023 MONDAY	Pharmaceutical Organic Chemistry – II	Pharmaceutical Organic Chemistry – III	Pharmaceutical Organic Chemistry – II	Pharmaceutical Organic Chemistry-II
19-04-2023 WEDNESDAY	Physical Pharmaceutics-I	Pharmacognosy I	Statistical Methods & Computer Applications	Statistical Methods & Computer Applications
21-04-2023 FRIDAY	Pharmaceutical Microbiology	Hospital and Community Pharmacy	Anatomy, Physiology & Pathophysiology	Anatomy Physiology & Patho physiology
25-04-2023 TUESDAY	Pharmaceutical Engineering	Pharmaceutical Unit Operations – I	Pharmaceutical Unit Operations – I	Pharmaceutical Unit Operations – I
27-04-2023 THURSDAY	---	Pharmaceutical Analysis- I	Physical Pharmacy – I	Physical Pharmacy – I

DATE:28-03-2023

Sd/-

CONTROLLER OF EXAMINATIONS

NOTE:(i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY  
(ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY,- HYDERABAD – 500 085

EXAMINATION BRANCH

TIME TABLE

**II YEAR B.PHARM-II SEMESTER – R17, R16, R15, R13, R09 REGULATION- REGULAR/SUPPLEMENTARY EXAMINATIONS AUGUST/SEPTEMBER-2022**

TIME→FN: 9:45 AM TO 12:45 PM

COURSE	R17	R16	R15	R13	R09
25-08-2022 THURSDAY	Pharmaceutical Organic Chemistry-III	PHARMACEUTICAL UNIT OPERATIONS – II	PHARMACEUTICAL UNIT OPERATIONS -II	PHARMACEUTICAL UNIT OPERATIONS-II	PHARMACEUTICAL UNIT OPERATIONS-II
29-08-2022 MONDAY	Medicinal Chemistry-I	BIOCHEMISTRY	PHARMACEUTICAL BIOCHEMISTRY	PHARMACEUTICAL BIOCHEMISTRY	ENVIRONMENTAL SCIENCE
01-09-2022 THURSDAY	Physical Pharmaceutics- II	PHARMACEUTICAL JURISPRUDENCE	PHARMACOGNOSY- I	PHARMACOGNOSY-I	PHARMACOGNOSY-I
03-09-2022 SATURDAY	Pharmacology-I	PHYSICAL PHARMACY-II	PHYSICAL PHARMACY- II	PHYSICAL PHARMACY-II	PHARMACEUTICAL ANALYSIS - I
05-09-2022 MONDAY	Pharmacognosy and Phytochemistry-I	<b>OPEN ELECTIVES</b>	ENVIRONMENTAL STUDIES	ENVIRONMENTAL STUDIES	PHYSICAL PHARMACY - II
		INTELLECTUAL PROPERTY RIGHTS			
		HERBAL DRUGS TECHNOLOGY			DISPENSING AND HOSPITAL PHARMACY
		GREEN CHEMISTRY			

DATE: 16-08-2022

Sd/-

CONTROLLER OF EXAMINATIONS

**NOTE:** (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY  
(ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY, HYDERABAD-500 085

EXAMINATION BRANCH

III YEAR B.PHARM - I SEMESTER-R17, R16, R15, R13, R09 REGULATIONS- REGULAR/SUPPLEMENTARY EXAMINATIONS FEBRUARY-2022

T I M E: FN: 9:45 AM TO 12:45 PM

DATE & DAY	R17	R16	R15	R13	R09
10-02-2022 THURSDAY	Medicinal Chemistry II	Pharmaceutical Microbiology	Pharmaceutical Microbiology	Pharmaceutical Microbiology	Pharmaceutical Microbiology
12-02-2022 SATURDAY	Industrial Pharmacy - I	Pharmaceutical Technology -I	Pharmacognosy – II	Pharmacognosy-II	Pharmaceutical Biochemistry
15-02-2022 TUESDAY	Pharmacology II	Pharmacology – I	Pharmacology – I	Pharmacology-I	Pharmacology - I
17-02-2022 THURSDAY	Pharmacognosy and Phytochemistry - II	Pharmacognosy -II	Pharmaceutical Technology – I	Pharmaceutical Technology-I	Pharmacognosy - II
19-02-2022 SATURDAY	(Open Elective-I) Generic Product Development	(Open Elective-I) Drug Regulatory Affairs	Pharmaceutical Analysis-I	Pharmaceutical Analysis -I	Pharmaceutical Technology - I
	Green Chemistry	Active Pharmaceutical Ingredient Process Development			
	Cell and Molecular Biology				
	Cosmetic science	Entrepreneurship and Small Business Enterprises			

DATE: 21-01-2022

## NOTE:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY  
 (ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL



Sd/-

CONTROLLER OF EXAMINATIONS

PRINCIPAL

AVANTHI INSTITUTE OF  
 PHARMACEUTICAL SCIENCES  
 Gunthapally (V), Abdullapurmet (M)  
 R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY, HYDERABAD – 500 085

EXAMINATION BRANCH

TIME TABLE

**III YEAR B.PHARM-II SEMESTER –R17, R16, R15, R13, R09 REGULATION-REGULAR/ SUPPLEMENTARY EXAMINATIONS AUGUST-2022**

TIME→ FN: 9:45 AM TO 12:45 PM

COURSE	R17	R16	R15	R13	R09
10-08-2022 WEDNESDAY	Medicinal Chemistry - III	Medicinal Chemistry - I	Medicinal Chemistry-I	Medicinal Chemistry-I	Medicinal Chemistry - I
12-08-2022 FRIDAY	Herbal Drug Technology	Pharmaceutical Technology – II	Pharmaceutical Technology-II	Pharmaceutical Technology-II	Pharmaceutical Technology – II
16-08-2022 TUESDAY	Pharmacology - III	Pharmacology – II	Pharmacology II	Pharmacology II	Pharmacology – II
19-08-2022 FRIDAY	Biopharmaceutics and Pharmacokinetics	Chemistry of Natural Products	Chemistry of natural products	Chemistry of Natural Products	Chemistry of Natural Drugs
22-08-2022 MONDAY	Open Elective - II	Open Elective - III	Pharmaceutical Jurisprudence	Pharmaceutical Jurisprudence	Pharmaceutical Jurisprudence
	Pharmaceutical Quality Assurance	Generic Product Development			
	Pharmaceutical Biotechnology	Drug Design And Discovery			
	Bioinformatics	Screening Methods In Pharmacology			
	Screening Methods In Pharmacology				

DATE :26-07-2022

NOTE:

- ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.
- READMITTED STUDENTS HAVE TO APPEAR FOR THE SUBSTITUTE SUBJECT(S) [WHICH IS ARE NOT SHOWN IN THE TIME-TABLE] IN PLACE OF THE SUBJECT(S) ALREADY PASSED. FOR DETAILS OF SUBSTITUTE SUBJECTS REFER THE COMMUNICATIONS RECEIVED FROM THE DIRECTOR OF ACADEMIC & PLANNING.



Sd/-

CONTROLLER OF EXAMINATIONS

PRINCIPAL

AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

KUKATPALLY, HYDERABAD-500 085

EXAMINATION BRANCH

**IV YEAR B.PHARM - I SEMESTER -R17, R16, R15, R13, R09 REGULATIONS- REGULAR/SUPPLEMENTARY EXAMINATIONS FEBRUARY-2022****TIME TABLE****TIME : FN: 9:45 AM TO 12:45 PM**

DATE & DAY	R17	R16	R15	R13	R09
09-02-2022 WEDNESDAY	Instrumental Methods of Analysis	Biopharmaceutics and Pharmacokinetics	Biopharmaceutics & Pharmacokinetics	Biopharmaceutics & Pharmacokinetics	Biopharmaceutics and Pharmacokinetics
11-02-2022 FRIDAY	Industrial Pharmacy-II	Pharmaceutical Analysis – II	Pharmacognosy III	Pharmacognosy III	Pharmaceutical Analysis - II
14-02-2022 MONDAY	Pharmacy Practice	Pharmacology - III	Pharmacology-III	Pharmacology-III	Pharmacology III
16-02-2022 WEDNESDAY	Novel Drug Delivery Systems	Medicinal Chemistry – II	Medicinal Chemistry – II	Medicinal Chemistry – II	Medicinal Chemistry II
18-02-2022 FRIDAY	Pharmaceutical Marketing	Pharmacy Administration	Pharmacy Administration	Pharmacy Administration	Pharmacy Administration
	Pharmaceutical Regulatory Science				
	Pharmacovigilance				
	Quality Control and Standardization of Herbals				

**DATE: 21-01-2022**

Sd/-

**CONTROLLER OF EXAMINATIONS**

NOTE:

- (i) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- (ii) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL.
- (iii) READMITTED STUDENTS HAVE TO APPEAR FOR THE SUBSTITUTE SUBJECTS WHICH IS/ARE NOT SHOWN IN THE TIME-TABLE IN PLACE OF THE



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (C)  
 R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD – 500 085

EXAMINATION BRANCH

TIME TABLE

**IV YEAR B.PHARM-II SEMESTER –R17, R16, R15, R13, R09 REGULATION-ADVANCED SUPPLEMENTARY EXAMINATIONS SEPTEMBER-2022**

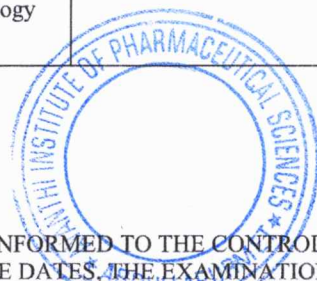
TIME→FN: 9.45 AM TO 12.45 PM

course	R17	R16	R15	R13	R09
21-09-2022 WEDNESDAY	Biostatistics and Research Methodology	Novel Drug Delivery Systems	Novel Drug Delivery Systems and Regulatory Affairs	Novel Drug Delivery Systems and Regulatory Affairs	Pharmacognosy III
23-09-2022 FRIDAY	Social and Preventive Pharmacy	Clinical Pharmacy	Pharmaceutical Biotechnology	Pharmaceutical Biotechnology	Novel Drug Delivery Systems and Regulatory
26-09-2022 MONDAY	Pharmaceutical Jurisprudence	Pharmaceutical Biotechnology	Pharmaceutical Analysis II	Pharmaceutical Analysis II	Clinical Pharmacy and Therapeutics
28-09-2022 WEDNESDAY	Elective -IV	Pharmacognosy – III	Human Values and Professional Ethics	Human Values and Professional Ethics	Medicinal Chemistry III
	Computer Aided Drug Design				
	Nano Technology				
	Experimental Pharmacology				
30-09-2022 FRIDAY	Advanced Instrumentation Techniques	Nano Technology Pharmacoepidemiology, Pharmacoeconomics and pharmacovigilance  Medicinal Plant Biotechnology	Clinical Pharmacy Practice	Clinical Pharmacy Practice	Pharmaceutical Biotechnology
	-----				
	-----				

DATE:08-09-2022

NOTE:

- ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS IMMEDIATELY.
- EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL
- READMITTED STUDENTS HAVE TO APPEAR FOR THE SUBSTITUTE SUBJECT(S) [WHICH IS/ARE NOT SHOWN IN THE TIME-TABLE] IN PLACE OF THE SUBJECT(S) ALREADY PASSED. FOR DETAILS OF SUBSTITUTE SUBJECTS REFER THE COMMUNICATIONS RECEIVED FROM THE DIRECTOR OF ACADEMIC & PLANNING.



Sd/-  
CONTROLLER OF EXAMINATIONS

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M)  
R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY-HYDERABAD-500085

EXAMINATION BRANCH

M. PHARM – II YEAR I SEMESTER -R19 REGULATION -REGULAR/SUPPLEMENTARY EXAMINATIONS MARCH-2023

TIMETABLE

TIME : 2:00 PM TO 5:00 PM

COURSE	13-03-2023 MONDAY	15-03-2023 WEDNESDAY
PHARMACOLOGY-01	ELECTIVE -V	OPEN ELECTIVE
	Biostatistics	Cosmeticology
	Hospital and Community Pharmacy	Pharmaceutical Administration
	Medicinal Plant Biotechnology	Drug Regulatory affairs
		Project Management
PHARMACEUTICAL CHEMISTRY-02	ELECTIVE -V	Audits and regulatory compliance
	Biostatistics	OPEN ELECTIVE
	Pharmaceutical Production and packaging Technology	Entrepreneurship Management
		Hazards and Safety management
		Audits and regulatory compliance
PHARMACEUTICS-03	Scale up and technology transfer	Pharmaceutical validation
	ELECTIVE -V	Nutraceuticals
	Biostatistics	OPEN ELECTIVE
	Production area, Design and Packaging Development	Screening methods in pharmacology
	Scale up and Technology Transfer	Entrepreneurship Management
PHARMACOGNOSY-07		Cosmetic science
	Biostatistics	Hazards and Safety management
	Stability Of Drugs And Dosage Forms	Audits and regulatory compliance
	Production Area Design And Packaging Development	Entrepreneur Management
		Hazards And Safety Management
		Cosmetic Science
		Audits And Regulatory Complaints
		Pharmaceutical Administration

DATE: 27/02/2023



Sd/-

CONTROLLER OF EXAMINATIONS

PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Kukatpally (V), Abdullapurmet  
R.R. Dist. Telangana.

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY-HYDERABAD-500085

EXAMINATION BRANCH

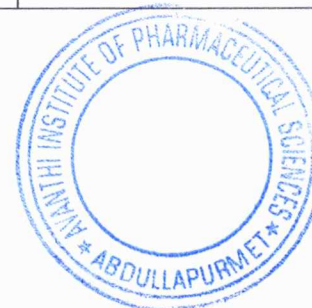
M. PHARM – II YEAR I SEMESTER -R19 REGULATION -REGULAR/SUPPLEMENTARY EXAMINATIONS MARCH-2023

TIMETABLE

TIME : 2:00 PM TO 5:00 PM

COURSE	13-03-2023 MONDAY	15-03-2023 WEDNESDAY
INDUSTRIAL PHARMACY-08	ELECTIVE -V	OPEN ELECTIVE
	Biostatistics	Screening methods in pharmacology
	Scale up and Technology Transfer	Entrepreneurship Management
	Production area, Design and Packaging Development	Cosmetic science
		Hazards and Safety management
PHARMACEUTICAL TECHNOLOGY -09	ELECTIVE -V	OPEN ELECTIVE
	Biostatistics	Screening methods in pharmacology
	Scale up and Technology Transfer	Entrepreneurship Management
	Production area, Design and Packaging Development	Cosmetic science
		Hazards and Safety management
PHARMACEUTICAL ANALYSIS -12	ELECTIVE -V	OPEN ELECTIVE
	Biostatistics	Screening Methods in Pharmacology
	Scale up and Technology Transfer	Entrepreneurship Management
	Production Area Design and Packaging Development	Cosmetic Science
		Hazards and Safety Management
		Audits and Regulatory Compliance

DATE: 27/02/2023



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
 Gunthapally (V), Abdullapurmet (M),  
 R.R. Dist. Telangana.

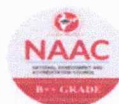
Sd/-



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



DATE: 07/02/2023


## B. PHARMACY

### PROJECT SCHEDULE

For the academic year **2022-2023** all the **IV B. PHARM II SEMESTER** are here by informed that the students should undergo the course project as per the JNTUH R17 REGULATIONS.

S.NO:	REVIEW & ASSESSMENT	TOPIC	TENTATIVE SCHEDULE
1	PROJECT INITIALIZATION	FINALIZATION OF TITLE & PLAN OF WORK	15/02/23 to 21/02/23
2	REVIEW-1	REVIEW OF LITERATURE	10/03/23 to 15/03/23
3	REVIEW-2	METHODOLOGY & EXPECTED RESULTS	03/05/23 to 11/05/23
4	REVIEW-3	RESULTS & DISCUSSION, CONCLUSION	18/06/23- 25/06/23



  
PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

*Committed to Excellence in Technical Education*



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Guidelines to students:

1. UG project work shall be carried out during IV Year II Semester.
2. Project will be evaluated for 100 marks. Student has to submit project work report at the end of semester.
3. Project shall be conducted in 3 Reviews
4. Project shall be completed before the commencement of SEE Theory examinations.
5. For Project the departmental committee consisting of Head of the Department, project supervisor shall evaluate the project work for 25 marks & External examiner shall evaluate the project work for 75 marks.
6. For conducting viva-voce of project, University selects an external examiner from the list of experts in the relevant branch submitted by the Principal of the College.
7. The student is deemed to have failed, if he/she
  - (i) Does not submit a report or does not make a presentation of the same before the evaluation committee as per schedule, or
  - (ii) Secures less than 40% marks in the sum total of the CIE and SEE taken together.
8. A student who has failed may reappear once for the above evaluation, when it is scheduled again; if he fails in such 'one reappearance' evaluation also, he has to reappear for the same in the next subsequent semester, as and when it is scheduled.

HOD:  
M.R.K.

PRINCIPAL

College Code : Z9



Ph: 6302454123

# KVK COLLEGE OF PHARMACY

(Affiliated to JNTUH, Approved by AICTE & PCI)

(B.Pharmacy, M. Pharmacy & Pharm.D)

Surmaiguda (V), Laskharguda Grampanchayath, Abdullapurmet (M), R.R. Dist.-501 512.  
E-mail : kvkcp1@gmail.com

*Sponsored by Kennedy Educational Society*

Regd. Office : Kennedy Educational Society, Phase - II, Sri Sai Colony, Opp. Radio Relay Tower,  
Hayathnagar, R.R. Dist. (T.S.) - 501 505.

Ref: KES/KVK/B.Pharm/ External Lab Exams / Jan 2023

Date:-24-01-2023,

**College Code: Z9**

To

The Principal,  
Avanthi Institute of Pharmaceutical Sciences,  
Gunthapally,  
Abdullapurment, R.R.(Dist.).

Respected Sir,

Sub: Relieving of **Mrs.Sruthi**, for External Practical Examiner – Reg.

This is to certify that **Mrs.Sruthi** Asst. Professor of your College has been appointed as External Practical Examiner at our College for B.Pharm III Year I Sem for **PHARMACOLOGY-II LAB** on **24-01-2023**. She has been relieved from the College on **24-01-2023** at **4:00 AM**

Thanking You.



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

**PRINCIPAL**  
Principal

KVK College of Pharmacy  
Surmaiguda, R.R. Dist. (T.S.)

College Code : Z9

Ph : 6302454123



# KVK COLLEGE OF PHARMACY

(Affiliated to JNTUH, Approved by AICTE & PCI)

Surmaiguda (V), Laskharguda (GP), Abdullapurmet (M), R.R. Dist. - 501512.

E-mail : kvkcp1@gmail.com

**Sponsored by Kennedy Educational Society**

**Regd. Office :** Kennedy Educational Society, Phase - II, Sri Sai Colony, Opp. Radio Relay Tower,  
Hayathnagar, R.R. Dist. (T.S.) - 501 505.

Ref: KES/KVK/B.Pharm Lab External Exams /April

Date: 10-04-2023,

**College Code: Z9**

To  
The Principal,  
Avanthi Institute of Pharmaceutical Sciences,  
Gunthapally,  
Abdullapurmet, R.R. (Dist.).

Sir,


**Sub: Relieving Letter of Mr.ANIL KUMAR– External Examiner-Reg**

This is to certify that **Mr.ANIL KUMAR**, Assistant Professor of your Institution has appointed as External Practical Examiner at our Institution for B.Pharm I year I sem for the subject **PHARMACEUTICAL INORGANIC CHEMISTRY LAB** on **10-04-2023**. He has been relieved from his duties on **10-04-2023 at 04:00 pm**.

Thanking you,



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

  
**PRINCIPAL**  
KVK College of Pharmacy  
Surmaiguda, R.R. Dist., T.S.



# KVK COLLEGE OF PHARMACY

(Affiliated to JNTUH, Approved by AICTE & PCI)

Surmaiguda (V), Laskharguda (GP), Abdullapurmet (M), R.R. Dist. - 501512.

E-mail : kvkcp1@gmail.com

**Sponsored by Kennedy Educational Society**

**Regd. Office :** Kennedy Educational Society, Phase - II, Sri Sai Colony, Opp. Radio Relay Tower,  
Hayathnagar, R.R. Dist. (T.S.) - 501 505.

Ref: KES/KVK/ B.Pharm Lab External Exams /April

Date: 10-04-2023,

**College Code: Z9**

To  
The Principal,  
Avanthi Institute of Pharmaceutical Sciences,  
Gunthapally,  
Abdullapurment, R.R. (Dist.).

Sir,

**Sub: Relieving Letter of Mrs.LAVANYA – External Examiner-Reg**

This is to certify that **Mrs.LAVANYA**, Assistant Professor of your Institution has appointed as External Practical Examiner at our Institution for B.Pharm I year I sem for the subject **PHARMACEUTICS LAB** on **10-04-2023**. She has been relieved from her duties on **10-04-2023 at 04:00 pm.**

Thanking you,



**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

**PRINCIPAL**  
Principal  
KVK College of Pha  
Surmaiguda, R.R. Dis



# KVK COLLEGE OF PHARMACY

(Affiliated to JNTUH, Approved by AICTE & PCI)

Surmaiguda (V), Laskharguda (GP), Abdullapurmet (M), R.R. Dist. - 501512.

E-mail : kvkcp1@gmail.com

Sponsored by Kennedy Educational Society

Regd. Office : Kennedy Educational Society, Phase - II, Sri Sai Colony, Opp. Radio Relay Tower,  
Hayathnagar, R.R. Dist. (T.S.) - 501 505.

Ref: KES/KVK/Pharm.D Lab External Exams /April

Date:10-04-2023,  
College Code:Z9

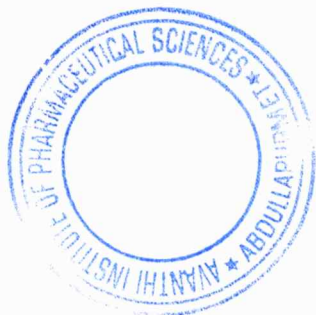
To  
The Principal,  
Avanthi Institute of Pharmaceutical Sciences,  
Gunthapally,  
Abdullapurmet, R.R.

Respected Sir,


**Sub: Relieving Letter of Mr.V.ANUDEEP- External Examiner-Reg**

This is to certify that **Mr.V.ANUDEEP**, Assistant Professor of your Institution has appointed as External Practical Examiner at our Institution for Pharm.D IV year for the subject **PHARMACOTHERAPEUTICS-III LAB** on **10-04-2023**. He has been relieved from his duties on **10-04-2023 at 04:00 pm**.

Thanking you,



PRINCIPAL  
AVANTHI INSTITUTE OF  
PHARMACEUTICAL SCIENCES  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

  
10/4/23  
PRINCIPAL  
KVK College of Pharmacy  
Surmaiguda, R.R. Dist., T.

College Code : Z9

Ph : 6302454123



# KVK COLLEGE OF PHARMACY

(Affiliated to JNTUH, Approved by AICTE & PCI)

Surmaiguda (V), Laskharguda (GP), Abdullapurmet (M), R.R. Dist. - 501512.

E-mail : kvkcp1@gmail.com

Sponsored by Kennedy Educational Society

Regd. Office : Kennedy Educational Society, Phase - II, Sri Sai Colony, Opp. Radio Relay Tower,  
Hayathnagar, R.R. Dist. (T.S.) - 501 505.

Ref: KES/KVK/ B.Pharm Lab External Exams /April

Date: 11-04-2023,

College Code:Z9


To  
The Principal,  
Avanthi Institute of Pharmaceutical Sciences,  
Gunthapally,  
Abdullapurmet, R.R.

Respected Sir,

**Sub: Relieving Letter of Dr. NIHAR RAJAN DAS- External Examiner-Reg**


This is to certify that **Dr. NIHAR RAJAN DAS**, Assistant Professor of your Institution has appointed as External Practical Examiner at our Institution for B.Pharm II year I sem for the subject **PHARMACEUTICAL ORGANIC CHEMISTRY- LAB** on **11-04-2023**. He has been relieved from his duties on **11-04-2023 at 04:00 pm**.

Thanking you,

  
**PRINCIPAL**

Principal  
KVK College of Pharmacy  
Surmaiguda, R.R. Dist., T.S.



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M),  
R.R. Dist. Telangana.

College Code : Z9

Ph : 6302454123



# KVK COLLEGE OF PHARMACY

(Affiliated to JNTUH, Approved by AICTE & PCI)

Surmaiguda (V), Laskharguda (GP), Abdullapurmet (M), R.R. Dist. - 501512.

E-mail : kvkcp1@gmail.com

Sponsored by Kennedy Educational Society

Regd. Office : Kennedy Educational Society, Phase - II, Sri Sai Colony, Opp. Radio Relay Tower,  
Hayathnagar, R.R. Dist. (T.S.) - 501 505.

Ref: KES/KVK/ B.Pharm Lab External Exams /April

Date: 11-04-2023,

College Code:Z9

To  
The Principal,  
Avanthi Institute of Pharmaceutical Sciences,  
Gunthapally,  
Abdullapurment, R.R.

Respected Sir,


**Sub: Relieving Letter of Dr. M. RAMA KRISHNA- External Examiner-Reg**

This is to certify that **Dr. M. RAMA KRISHNA**, Assistant Professor of your Institution has appointed as External Practical Examiner at our Institution for B.Pharm II year I sem for the subject **PHARMACEUTICAL MICROBIOLOGY- LAB** on **11-04-2023**. He has been relieved from his duties on **11-04-2023 at 04:00 pm**.

Thanking you,

  
**PRINCIPAL**



  
**PRINCIPAL**  
**AVANTHI INSTITUTE OF**  
**PHARMACEUTICAL SCIENCES**  
Gunthapally (V), Abdullapurmet (M)

Principal  
KVK College of Pharmacy  
Surmaiguda, R.R. Dist., T.S



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:		PHARM D							
Course Outcome Attainment - Internal Assessments									
Name of the Faculty:		V ANUDEEP		Academic Year:		2022-23			
Branch & Section:		PHARM D		Exam:		MID - I			
Course/Sub:		PATHO		Year/Semister:		II			
		CO1	C01	CO1	C01	CO1	C01	C02	C02
SLNo	Roll Number	Question No.							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Maximum Marks		5	5	5	5	5	5	5	5
1	21GNIT0001	5		4	4	4	5	5	
2	21GNIT0002	5	5	4	4		4	5	
3	21GNIT0003	5	4	3	5		5		5
4	21GNIT0004	4	4		4	5		5	5
5	21GNIT0005		5	5	3	5	4	5	
6	21GNIT0006			5	4	5	5	3	5
7	21GNIT0007	5	5	3		5	5		4
8	21GNIT0008	5	4	5	4	5		5	
9	21GNIT0009	5	4	5	3	5			4
10	21GNIT0010	5	4	5	5	5			4
11	21GNIT0011	5	4	5	4	5	4		
12	21GNIT0012	4		5	5	5		4	4
13	21GNIT0013	4			5	3	5	5	4
14	21GNIT0015		4	5	5		4	5	5
15	21GNIT0016			4	5	5	4	5	5
16	21GNIT0017	5	4		5	5		4	5
17	21GNIT0018	4	5	4		5	4	5	
18	21GNIT0019	4	5		5	4		5	5
19	21GNIT0020	5	4	5		5	4		5
20	21GNIT0021	4	5	5			4	4	5
21	21GNIT0022	5	4	5		4	5		5
22	21GNIT0023	5	5	4		4		4	5
23	21GNIT0024	5	5		4	4		4	5
24	21GNIT0025	4	5	4			4	5	5
25	21GNIT0026	4	4	5		4	5		5
26	21GNIT0027	5	4	5	5		4	5	
27	21GNIT0028	5		4	4		5	5	4
28	21GNIT0029	5	4		5		5	4	4
29	21GNIT0030	4			5	5	4	5	4
30	21GNIT0031	5		5	5		3	4	5
31	21GNIT0032		5		4	5	5	4	5
No. of students attempted		26	23	23	23	22	22	23	24
Max Marks Question wise		5	5	5	5	5	5	5	5
Target 50%		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
No. of Students above 50%		26	23	23	23	22	22	23	24
% of Students>50%		100.0	100	100	100.0	100.0	100	100	100.0
Attainment Level		3	3	3	3	3	3	3	3
Attainment table									
70-80%	1								
80-90%	2								
90-100%	3								



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.




# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:		PHARM D							
Course Outcome Attainment - Internal Assessments									
Name of the Faculty:		V ANUDEEP		Academic Year:		2022-23			
Branch & Section:		PHARM D		Exam:		MID - II			
Course/Sub:		PATHO		Year/Semister:		II			
		C02	C02	C02	C02	C03	C03	C03	C03
SLNo	Roll Number	Question No.							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Maximum Marks		5	5	5	5	5	5	5	5
1	21GNIT0001	5	4	4		5	5	4	
2	21GNIT0002	4	5	5	5	5		4	
3	21GNIT0003	5	4	5	5	5		4	
4	21GNIT0004		4	5	4		4	5	4
5	21GNIT0005	4		5	4	5	3	5	
6	21GNIT0006	5	5	4	4		4	5	4
7	21GNIT0007	5	4	4	5	4	5		4
8	21GNIT0008	5	4	4		5	4		5
9	21GNIT0009	4	5	4		5	4		4
10	21GNIT0010	5	4		5	4	4		4
11	21GNIT0011	5	4	5	4	5		5	
12	21GNIT0012	4	5		5		4	5	5
13	21GNIT0013	5	5	5	4		5		3
14	21GNIT0015		4	5	5	4		5	5
15	21GNIT0016	5	4	5	5	4	4		
16	21GNIT0017	5	4	4	4		4		5
17	21GNIT0018		5	4	4	5		5	5
18	21GNIT0019	4		5	5		4	5	4
19	21GNIT0020	4	5	4		5	4		5
20	21GNIT0021		5	4		4	4	5	5
21	21GNIT0022	5	4	5	4		5	4	5
22	21GNIT0023	5	4	4		4		4	5
23	21GNIT0024	5		5	4		5	4	5
24	21GNIT0025	4		4	4		5	5	4
25	21GNIT0026	4			5	4	5	4	5
26	21GNIT0027		5	3	5		4	5	5
27	21GNIT0028	5	5	4			5	4	4
28	21GNIT0029	5		5		4	5	4	4
29	21GNIT0030		5	5		4	4	5	4
30	21GNIT0031	5	4	5	4		3		5
31	21GNIT0032	4	5	4	5		5	4	
No. of students attempted		26	23	23	23	22	22	23	24
Max Marks Question wise		5	5	5	5	5	5	5	5
Target 50%		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
No. of Students above 50%		26	23	23	23	22	22	23	24
% of Students>50%		100.0	100	100	100.0	100.0	100	100	100.0
Attainment Level		3	3	3	3	3	3	3	3

Attainment table	
70-80%	1
80-90%	2
90-100%	3



*[Signature]*  
 - PRINCIPAL  
 Avanthi's Institute of Pharmaceutical Sciences  
 Gunthapally (V), Hayath Nagar (M),  
 Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Course Outcome Attainment - Internal Assessments

Name of the Faculty:		V ANUDEEP		Academic Year:		2022-23			
Branch & Section:		PHARM D		Exam:		MID - III			
Course/Sub:		PMB		Year/Semister:		II			
		CO3	CO3	CO4	CO4	CO4	CO4	CO4	CO4
Sl.No	Roll Number	Question No.							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Maximum Marks		5	5	5	5	5	5	5	5
1	21GN1T0001		5	4	4	5	4	5	
2	21GN1T0002		5	5	5	5		4	5
3	21GN1T0003		4	5	5	5		4	5
4	21GN1T0004		4	5	4		5	5	4
5	21GN1T0005	4	5		4	5	4	5	
6	21GN1T0006		5	4	5		4	5	4
7	21GN1T0007	5	4	4		4	5		4
8	21GN1T0008		4	4	5	5	4		5
9	21GN1T0009	5	5	4		5	4		4
10	21GN1T0010		4	5	5	4	5		4
11	21GN1T0011	5	4	5	4			5	5
12	21GN1T0012		5	4	5	4		5	5
13	21GN1T0013		5	5	4	5	5		3
14	21GN1T0015			5	5	4	5	5	5
15	21GN1T0016			5	5	4	4	5	4
16	21GN1T0017		5	4	4		4	5	5
17	21GN1T0018	4		5	4	5	4	5	
18	21GN1T0019	5		5	5		4	5	4
19	21GN1T0020	4	5	4		5	4		5
20	21GN1T0021		5	4		4	4	5	5
21	21GN1T0022	5	4	5	4		5		5
22	21GN1T0023	5	4	4		5		4	5
23	21GN1T0024	5		5	4		5	4	5
24	21GN1T0025	4		5	4		5	5	4
25	21GN1T0026	4			5	4	5	4	5
26	21GN1T0027		5	4	5		4	5	5
27	21GN1T0028	5	5	4		4	5		4
28	21GN1T0029			5	5	4	5	4	4
29	21GN1T0030		5	5		4	4	5	4
30	21GN1T0031		4	5	4	5	4		5
31	21GN1T0032		5	4	5		5	4	4
No. of students attempted		27	23	24	23	22	22	23	24
Max Marks Question wise		5	5	5	5	5	5	5	5
Target 50%		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
No. of Students above 50%		27	23	24	23	22	22	23	24
% of Students>50%		100.0	100	100	100.0	100.0	100	100	100.0
Attainment Level		3	3	3	3	3	3	3	3

### Attainment table

70-80%	1
80-90%	2
90-100%	3



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:	PHARM D		
<u>Course Outcome Attainment External Examination</u>			
Name of the Faculty:	V ANUDEEP	Academic Year:	2022-23
Branch & Section:	PHARM D	Exam:	EXTERNAL
Course:	PATHO	Year/Semester:	II

S.NO.	HALLTICKET NO	TOTAL(Max. Score Marks)
1	21GN1T0001	47
2	21GN1T0002	46
3	21GN1T0003	46
4	21GN1T0004	46
5	21GN1T0005	43
6	21GN1T0006	39
7	21GN1T0007	45
8	21GN1T0008	53
9	21GN1T0009	52
10	21GN1T0010	53
11	21GN1T0011	53
12	21GN1T0012	35
13	21GN1T0013	53
14	21GN1T0015	53
15	21GN1T0016	33
16	21GN1T0017	61
17	21GN1T0018	48
18	21GN1T0019	52
19	21GN1T0020	34
20	21GN1T0021	56
21	21GN1T0022	35
22	21GN1T0023	42
23	21GN1T0024	53
24	21GN1T0025	35
25	21GN1T0026	47
26	21GN1T0027	37
27	21GN1T0028	44
28	21GN1T0029	46
29	21GN1T0030	36
30	21GN1T0031	43
31	21GN1T0032	47
No. of students who attempted the subject		31
Max. Marks		70
No. of students secured > 26 marks		31
Percentage of students secured > 26 marks		100.0
Overall External Attainment level		3

Attainment table	
70-80%	1
80-90%	2
90-100%	3



*(Signature)*  
PRINCIPAL

Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:	PHARM D		
Overall Course Outcome Attainment			
Name of the Faculty:	V ANUDEEP	Academic Year:	2022-23
Branch & Section:	PHARM D	Exam:	
Course:	PATHO	Semester:	II

Course Outcomes	1st	2nd	3rd	Internal	University	Overall Attainment
Course outcome - 1	3	-	-	3	3	3
Course outcome - 2	3	3	-	3	3	3
Course outcome - 3	-	3	3	3	3	3
Course outcome - 4	-	-	3	3	3	3
Average				3	3	3

OVERALL ATTAINMENT OF THE SUBJECT =  $0.25 \times \text{INT} + 0.75 \times \text{EXT}$



- PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## COURSE OUTCOMES

CO1	Students will define the basic pathogenesis of human disease
CO2	Students will define and explore the most common etiologies and predisposing factors associated with human disease
CO3	Students understands the basis for some laboratory tests and other diagnostic procedures
CO4	Students will make correlations between pathophysiology and clinical skills they are learning in their allied health

## CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	2	2	1	2	1	2	1	3	3	3	3	2	2	2
CO2	3	3	2	1	3	2	2	2	1	2	1	3	3	3
CO3	3	1	3	1	2	2	2	1	3	1	3	2	1	2
CO4	2	2	2	2	2	3	3	2	2	2	3	3	2	3
CO avg(M)	2.5	2	2	1.5	2	2.25	2	2	2.25	2	2.5	2.5	2	2.5
Attainment Level*	2.5	2	2	1.5	2	2.25	2	2	2.25	2	3	2.5	2	2.5



- PRINCIPAL

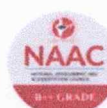
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:		PHARM D							
Course Outcome Attainment - Internal Assessments									
Name of the Faculty:		AYESHA KHAN		Academic Year:		2022-23			
Branch & Section:		PHARM D		Exam:		MID - I			
Course/Sub:		P COL		Year/Semister:		II			
		CO1	CO1	CO1	CO1	CO1	CO1	C02	C02
Sl.No	Roll Number	Question No.							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Maximum Marks		5	5	5	5	5	5	5	5
1	21GN1T0001	5		4	4	4	5	5	
2	21GN1T0002	5	5	4	4		4	5	
3	21GN1T0003	5	4	3	5		5		5
4	21GN1T0004	4	4		4	5		5	5
5	21GN1T0005		5	5	3	5	4	5	
6	21GN1T0006			5	4	5	5	3	5
7	21GN1T0007	5	5	3		5	5		4
8	21GN1T0008	5	4	5	4	5		5	
9	21GN1T0009	5	4	5	3	5			4
10	21GN1T0010	5	4	5	5	5			4
11	21GN1T0011	5	4	5	4	5	4		
12	21GN1T0012	4		5	5	5		4	4
13	21GN1T0013	4			5	3	5	5	4
14	21GN1T0015		4	5	5		4	5	5
15	21GN1T0016			4	5	5	4	5	5
16	21GN1T0017	5	4		5	5		4	5
17	21GN1T0018	4	5	4		5	4	5	
18	21GN1T0019	4	5		5	4		5	5
19	21GN1T0020	5	4	5		5	4		5
20	21GN1T0021	4	5	5			4	4	5
21	21GN1T0022	5	4	5		4	5		5
22	21GN1T0023	5	5	4		4		4	5
23	21GN1T0024	5	5		4	4		4	5
24	21GN1T0025	4	5	4			4	5	5
25	21GN1T0026	4	4	5		4	5		5
26	21GN1T0027	5	4	5	5		4	5	
27	21GN1T0028	5		4	4		5	5	4
28	21GN1T0029	5	4		5		5	4	4
29	21GN1T0030	4			5	5	4	5	4
30	21GN1T0031	5		5	5		3	4	5
31	21GN1T0032		5		4	5	5	4	5
No. of students attempted		26	23	23	23	22	22	23	24
Max Marks Question wise		5	5	5	5	5	5	5	5
Target 50%		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
No. of Students above 50%		26	23	23	23	22	22	23	24
% of Students>50%		100.0	100	100	100.0	100.0	100	100	100.0
Attainment Level		3	3	3	3	3	3	3	3
Attainment table									
70-80%	1								
80-90%	2								
90-100%	3								



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:		PHARM D							
Course Outcome Attainment - Internal Assessments									
Name of the Faculty:		AYESHA KHAN		Academic Year:		2022-23			
Branch & Section:		PHARM D		Exam:		MID - II			
Course/Sub:		P COL		Year/Semister:		II			
		C02	C02	C02	C02	C03	C03	C03	C03
Sl.No	Roll Number	Question No.							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Maximum Marks		5	5	5	5	5	5	5	5
1	21GNIT0001	5	4	4		5	5	4	
2	21GNIT0002	4	5	5	5	5		4	
3	21GNIT0003	5	4	5	5	5		4	
4	21GNIT0004		4	5	4		4	5	4
5	21GNIT0005	4		5	4	5	3	5	
6	21GNIT0006	5	5	4	4		4	5	4
7	21GNIT0007	5	4	4	5	4	5		4
8	21GNIT0008	5	4	4		5	4		5
9	21GNIT0009	4	5	4		5	4		4
10	21GNIT0010	5	4		5	4	4		4
11	21GNIT0011	5	4	5	4	5		5	
12	21GNIT0012	4	5		5		4	5	5
13	21GNIT0013	5	5	5	4		5		3
14	21GNIT0015		4	5	5	4		5	5
15	21GNIT0016	5	4	5	5	4	4		
16	21GNIT0017	5	4	4	4		4		5
17	21GNIT0018		5	4	4	5		5	5
18	21GNIT0019	4		5	5		4	5	4
19	21GNIT0020	4	5	4		5	4		5
20	21GNIT0021		5	4		4	4	5	5
21	21GNIT0022	5	4	5	4		5	4	5
22	21GNIT0023	5	4	4		4		4	5
23	21GNIT0024	5		5	4		5	4	5
24	21GNIT0025	4		4	4		5	5	4
25	21GNIT0026	4			5	4	5	4	5
26	21GNIT0027		5	3	5		4	5	5
27	21GNIT0028	5	5	4			5	4	4
28	21GNIT0029	5		5		4	5	4	4
29	21GNIT0030		5	5		4	4	5	4
30	21GNIT0031	5	4	5	4		3		5
31	21GNIT0032	4	5	4	5		5	4	
No. of students attempted		26	23	23	23	22	22	23	24
Max Marks Question wise		5	5	5	5	5	5	5	5
Target 50%		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
No. of Students above 50%		26	23	23	23	22	22	23	24
% of Students>50%		100.0	100	100	100.0	100.0	100	100	100.0
Attainment Level		3	3	3	3	3	3	3	3

Attainment table	
70-80%	1
80-90%	2
90-100%	3



**PRINCIPAL**  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



## Course Outcome Attainment - Internal Assessments

Name of the Faculty:		AYESHA KHAN		Academic Year:		2022-23			
Branch & Section:		PHARM D		Exam:		MID - III			
Course/Sub:		P COL		Year/Semester:		II			
		C03	C03	C04	C04	C04	C04	C04	C04
Sl.No	Roll Number	Question No.							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Maximum Marks		5	5	5	5	5	5	5	5
1	21GN1T0001		5	4	4	5	4	5	
2	21GN1T0002		5	5	5	5		4	5
3	21GN1T0003		4	5	5	5		4	5
4	21GN1T0004		4	5	4		5	5	4
5	21GN1T0005	4	5		4	5	4	5	
6	21GN1T0006		5	4	5		4	5	4
7	21GN1T0007	5	4	4		4	5		4
8	21GN1T0008		4	4	5	5	4		5
9	21GN1T0009	5	5	4		5	4		4
10	21GN1T0010		4	5	5	4	5		4
11	21GN1T0011	5	4	5	4			5	5
12	21GN1T0012		5	4	5	4		5	5
13	21GN1T0013		5	5	4	5	5		3
14	21GN1T0015			5	5	4	5	5	5
15	21GN1T0016			5	5	4	4	5	4
16	21GN1T0017		5	4	4		4	5	5
17	21GN1T0018	4		5	4	5	4	5	
18	21GN1T0019	5		5	5		4	5	4
19	21GN1T0020	4	5	4		5	4		5
20	21GN1T0021		5	4		4	4	5	5
21	21GN1T0022	5	4	5	4		5		5
22	21GN1T0023	5	4	4		5		4	5
23	21GN1T0024	5		5	4		5	4	5
24	21GN1T0025	4		5	4		5	5	4
25	21GN1T0026	4			5	4	5	4	5
26	21GN1T0027		5	4	5		4	5	5
27	21GN1T0028	5	5	4		4	5		4
28	21GN1T0029			5	5	4	5	4	4
29	21GN1T0030		5	5		4	4	5	4
30	21GN1T0031		4	5	4	5	4		5
31	21GN1T0032		5	4	5		5	4	4
No. of students attempted		27	23	24	23	22	22	23	24
Max Marks Question wise		5	5	5	5	5	5	5	5
Target 50%		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
No. of Students above 50%		27	23	24	23	22	22	23	24
% of Students>50%		100.0	100	100	100.0	100.0	100	100	100.0
Attainment Level		3	3	3	3	3	3	3	3

### Attainment table

70-80%	1
80-90%	2
90-100%	3



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.



Department:	PHARM D		
<u>Course Outcome Attainment External Examination</u>			
Name of the Faculty:	AYESHA KHAN	Academic Year:	2022-23
Branch & Section:	PHARM D	Exam:	EXTERNAL
Course:	P COL	Year/Semester:	II

S.NO.	HALLTICKET NO	TOTAL(Max. Score Marks)
1	21GN1T0001	47
2	21GN1T0002	46
3	21GN1T0003	46
4	21GN1T0004	46
5	21GN1T0005	43
6	21GN1T0006	39
7	21GN1T0007	45
8	21GN1T0008	53
9	21GN1T0009	52
10	21GN1T0010	53
11	21GN1T0011	53
12	21GN1T0012	35
13	21GN1T0013	53
14	21GN1T0015	53
15	21GN1T0016	33
16	21GN1T0017	61
17	21GN1T0018	48
18	21GN1T0019	52
19	21GN1T0020	34
20	21GN1T0021	56
21	21GN1T0022	35
22	21GN1T0023	42
23	21GN1T0024	53
24	21GN1T0025	35
25	21GN1T0026	47
26	21GN1T0027	37
27	21GN1T0028	44
28	21GN1T0029	46
29	21GN1T0030	36
30	21GN1T0031	43
31	21GN1T0032	47
No. of students who attempted the subject		31
Max. Marks		70
No. of students secured > 26 marks		31
Percentage of students secured > 26 marks		100.0
Overall External Attainment level		3

Attainment table	
70-80%	1
80-90%	2
90-100%	3



PRINCIPAL  
Avanthi's Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.




Department:	PHARM D		
Overall Course Outcome Attainment			
Name of the Faculty:	AYESHA KHAN	Academic Year:	2022-23
Branch & Section:	PHARM D	Exam:	
Course:	P COL	Semester:	II

Course Outcomes	1st	2nd	3rd	Internal	University	Overall Attainment
Course outcome - 1	3	-	-	3	3	3
Course outcome - 2	3	3	-	3	3	3
Course outcome - 3	-	3	3	3	3	3
Course outcome - 4	-	-	3	3	3	3
Average				3	3	3

OVERALL ATTAINMENT OF THE SUBJECT =  $0.25 \times \text{INT} + 0.75 \times \text{EXT}$



  
PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.



# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Rameji Filmcity, Hyderabad - 501 512.



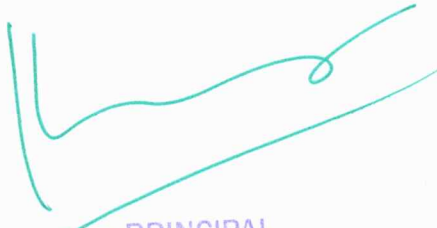
## COURSE OUTCOMES

CO1	The student would have learnt about the different drugs used with an emphasis on its classification
CO2	They would have studied, dose, route of administration, precautions, and contraindications
CO3	They would have understood the pharmacological aspects of drugs used to treat ailment of different organ systems
CO4	They would appreciate the importance of drug discovery by preclinical and clinical trials.

### CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	2	2	1	2	3	3	3	2	2	3	3	2	2	2
CO2	3	3	3	3	1	2	2	3	3	2	3	3	3	3
CO3	3	3	3	3	2	2	3	3	3	2	2	2	3	2
CO4	2	2	3	3	3	3	3	2	2	2	2	2	2	3
CO avg(M)	2.5	2.5	2.5	2.75	2.25	2.5	2.75	2.5	2.5	2.25	2.5	2.25	2.5	2.25
Attainment Level*	2.5	2.5	2.5	2.75	2.25	2.5	2.75	2.5	2.5	2.25	3	2.25	2.5	2.5



  
- PRINCIPAL  
Avanthi Institute of Pharmaceutical Sciences  
Gunthapally (V), Hayath Nagar (M),  
Ranga Reddy Dist.