



M. Pharm 1ST Year 1ST Semester, 2022-23, 1ST CA

COURSE: M.PHARM

PAPER: ADVANCE PHARMACOLOGY-I


CODE: MPT1082

Time: BEFORE 10TH OCT 22

Full Marks: 25

WRITE THE ASSIGNMENT IN AN A4 PAPER AND UPLOAD IN PDF FORMAT IN THE UPLOADING SECTION OF GOOGLE FORM.

Assignment/Topic	Map. CO	Marks	
Q1. Explain with help of a diagram the neurohumoral transmission and the various categories of drug belonging to various therapeutic areas (anxiety, depression, epilepsy, CNS stimulant etc) that modulate each process of transmission.	MPT 1082. CO2	12	
Q2. Summarize the effect of binding to plasma proteins on the distribution, activity and elimination of drugs.	MPT 1082. CO1	10	
Q3. A patient having severe burns was admitted in the hospital and requires i.v. morphine to treat his pain. The Vd for morphine is 200 L. Calculate the i.v. loading dose do you need to give to rapidly achieve a therapeutic level of 60 ng/ml and relieve his pain.	MPT 1082. CO1	3	
ASSIGNMENT AND CO. MAPPING	CO	NO OF QUES.	MARKS
	CO. 1	2	13
	CO. 2	1	12
	CO. 3		
	CO. 4		
	CO. 5		
	TOTAL	3	25


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B. Pharm. 3rd Year 5th Semester, 2022-23, 2nd CA
COURSE: B. PHARM

PAPER: Pharmacognosy & Phytochemistry II Theory
Full Marks: 25

CODE: PT 512

- Write an Assignment of the following topics.
- Assignments should be unique for every student. Any Assignment found to be copied, will be treated as cancelled.
- Last date for submission of Assignment is 29/08/22.
- Follow the set of instruction given from Examination Cell, BCRCP while preparing for submission.

Assignment/Topic	Map. CO	Marks	
1. Enumerate the biosynthesis of steroidal glycosides (Cardenolides) by Mevalonate pathway.	1	8	
2. Which biosynthetic pathway is responsible biosynthesis of Phenylalanine? Describe the pathway.	1	8	
3. Describe the MEP pathway for biosynthesis of Sarsapogenin.	1	9	
Assignment & CO MAPPING	CO	NO OF QUES.	MARKS
	CO. 1	3	25
	CO. 2	-	-
	CO. 3	-	-
	CO. 4	-	-
	CO. 5	-	-
TOTAL	3	25	


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B. Pharm. 2nd Year 3rd Semester, 2022-2023 3rd CA

PAPER: Microbiology

Time: 1 hr

CODE: PT319.

Full Marks: 25

5*1=5

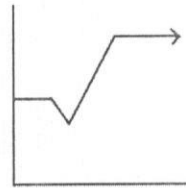
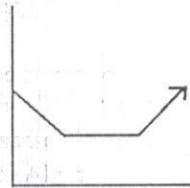
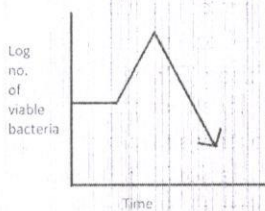
Answer any five of the questions. (MCQ)

1. Fluorescence is produced when particular wavelength of light falls on a specimen, dyed with a fluorescent dye, because: (CO- 1)
a) A longer wavelength of light falls on it and emit shorter wavelength of light.
b) When shorter wavelength of light falls on it and emits longer wavelength and higher energy
c) When shorter wavelength of light falls on it and emits longer wavelength and lesser energy
d) all are true
2. The formula of resolution/resolving power of an objective lens is $r = (0.61 \times \lambda) / \text{numerical aperture}$ (With cedar-wood oil). Now as per formula above, which wavelength of light will give the best resolution? (CO-1)
a) violet light b) Green light c) Blue light d) Red light
3. The value of numerical aperture (N.A.) of an oil immersion objective lens of microscope (CO- 1)
a) Have large diameter and short focal length
b) Have very small diameter and short focal length
c) Have very small diameter and long focal length
d) Have large diameter and long focal length
4. Indole test (in IMVIC) positive indicates the presence of (CO- 2)
a) E. coli b) Salmonella spp. c) Shigella spp. d) Proteus vulgaris
5. The smallest known agents of infectious disease is (CO- 3)
a) Bacteria b) Viroids c) Virus d) Algae
6. The active ingredient in antidandruff shampoo is (CO- 2)
a) Zinc b) Selenium c) Silver d) copper
7. Formalin contains (CO-2)
a) 50% to 54% formaldehyde
b) 80% to 83 formaldehyde
c) 37% to 40% formaldehyde
d) 7% to 10% formaldehyde

Answer any four of the following. (Short answer question)

5*4=20

1. You have to evaluate the characters of the following growth curves with proper logic to justify your answer (1.5 + 1.5 + 2) (CO- 1)



2. Why cedar-wood oil is added in the working distance of a microscope for its morphological study? Describe with proper logic and diagram. Co1 5

Why cedar-wood oil is added in the working distance of a


Co1 5

- 3) What type of microscope will you use to study live *Treponema pallidum*? Give a diagrammatic brief representation of the same. CO1 5

4. Discuss the lytic cycle of bacteriophage with diagram. CO3 5

5. What are the different types of radiations are used to control microbial growth? Mention their advantages and disadvantages as per your opinion. CO2 2.5+2.5

6. Briefly describe ZIEHL-NEELSEN staining procedure. Describe its application. CO2 4+1


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B. Pharm. 4th Year 7th Semester, 2022-2023, 3rd CA

PAPER: NOVEL DRUG DELIVERY SYSTEM (THEORY)

CODE: PT716B

Time: 1 hr

Full Marks: 25

Answer any five of the questions. (MCQ)

5*1=5

- PEG-coated liposomes are produced to (CO-1)
a) Increase the clearance of the loaded drug. b) Improve the short half-life of the loaded drugs. c) Enhance the circulation times of the colloidal systems. d) Decrease the particle size of the colloidal systems.
- Antibodies or ligands are attached with a drug delivery system for (CO-1)
a) Triggered drug release. b) Sustained drug release. c) Passive targeting. d) Active targeting.
- I am "Polymeric vesicles with a core shell structure, which are made of diblock copolymers, containing hydrophilic and hydrophobic portions." Who am I? (CO-3)
a) Dendrimers b) Polymersomes c) Liposomes d) Micelles
- Which is FALSE related to passive targeting? (CO-1)
a) It is associated with mononuclear phagocyte system. b) It is associated with enhanced permeability and retention effect. c) It utilizes of homing device. d) It utilizes the natural distribution characteristics.
- Identify the ODD one regarding phagocytosis. (CO-1)
a) It is enhanced for particles with higher hydrophilic surface characteristics. b) It is enhanced for particles with higher hydrophobic surface characteristics. c) It is carried out by mononuclear phagocyte system. d) It is mediated by the adsorption of specific blood components.
- Which is FALSE associated to targeted drug delivery systems? (CO-3)
a) These provide maximum adverse effects. b) These deliver drugs specifically to diseased cells. c) These prevent inactivation of drugs during transit to the target sites. d) These provide an effective treatment at a relatively low drug concentration.
- Gene delivery could be accomplished by (CO-1)
a) stealth liposomes. b) immunoliposomes. c) cationic liposomes. d) niosomes.

Answer any four of the following. (Short answer question)

5*4=20

- Differentiate polyclonal and monoclonal antibodies. Write a short note on therapeutic applications of monoclonal antibodies in cancer therapy. (CO-1)
- Enlist various components of liposomes. Explain the mechanisms of liposome formation. (CO-3)
- Classify nanoparticles. Illustrate various targeting approaches of nanoparticles. (CO-1)
- Define niosomes. Summarize interfacial polymerization technique of nanoparticle synthesis. (CO-3)
- Enlist various advantages of nanoparticles and their characterization parameters. (CO-3)
- Distinguish active and passive drug targeting. Elaborate enhanced permeability and retention (EPR) effects. (CO-1)


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B. Pharm. 4th Year 8th Semester, 2023 1st Continuous Assessment (CA1)

SUBJECT: ADVANCED INSTRUMENTATION TECHNIQUES

CODE: PT810C


Full Marks: 25

Instructions: Please read carefully and follow the given instructions.

1. Make a Powerpoint presentation (PPT) on the given topic as follows (6-8 slides).
2. Covert the PPT to PDF and submit a soft copy by **31-01-2023** in the link provided from the Examination cell to upload the PDF of your PPT.
3. Rename the PDF with your University Roll No. only.
4. Presentation should be unique for every student. **Any presentation found to be copied will be treated as cancelled.**
5. Grading will be as per rubrics provided the by Examination cell.
6. You have to present the PPT on 24th and 25th January 2023 in the respective theory classes of MND and PSP sir as per the scheduled time given in the routine.

Link for submission: <https://forms.gle/K1AznwfNKtvWyn6s7>

Q. No	Topic for the assignment of All students	Map. CO	Marks	
1	Applications of Thermogravimetric Analysis (TGA) in Pharmaceutical Field with its Principles and instrumentation.	CO.PT810C.2	25	
QUESTION PAPER AND CO. MAPPING		CO	NO OF QUES.	MARKS
		CO. 1		
		CO. 2	1	25
		CO. 3		
		CO. 4		
		CO. 5		
		TOTAL	1	25


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M. Pharm 1st Year 2nd Semester, 2022-23, 2nd CA
COURSE: M.PHARM (Pharmaceutics)

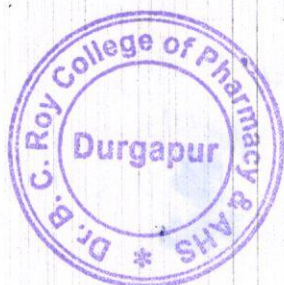
PAPER: COMPUTER AIDED DRUG DEVELOPMENT

CODE: MPT 2063

Full Marks: 25

WRITE THE ASSIGNMENT IN AN A4 PAPER AND UPLOAD IN PDF FORMAT IN THE UPLOADING SECTION OF GOOGLE FORM.

Assignment/Topic	Map. CO	Marks	
What is QBD? Differentiate between QBD and QBT. What are the different elements of QBD? Discuss about different tools applied in QBD.	CO.1	25	
ASSIGNMENT AND CO. MAPPING	CO	NO OF QUES.	MARKS
	CO. 1	1	25
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B. Pharm. 2nd Year 4th Semester, 2022-2023 3rd CA

PAPER: PHARMACEUTICAL ORGANIC CHEMISTRY III

CODE: PT 414

Time: 1 hr

Full Marks: 25

Answer five questions.

5*1=5

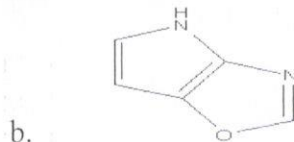
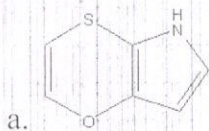
1. Mention the difference between an unsaturated heterocycle and partially unsaturated heterocycle (CO-1)
2. Draw the structure of thiazole and isothiazole (CO-1)
3. Classify fused heterocycles with suitable example (CO-1)
4. 3, 5-dimethyl-5-ethylloxazolidine has been widely used as an anti-epileptic drug. Draw its structure (CO-1)
5. The heterocycle present in the given structure (CO-1)



Answer any four of the following. (Short answer question)

5*4=20

1. Explain Geometric isomerism in oximes and azo compounds with suitable examples (CO-3)
2. "Vitamin A is an example of biologically important compound"- Explain with a suitable example (CO-3)
3. Discuss Optical Isomerism of cyclic compounds with suitable examples. (CO-3)
4. Discuss the aromaticity of pyrrole and furan. (CO-2)
5. Enlist the IUPAC name of the given structure (CO-1)



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B. Pharm. 2nd Year 4th Semester, 2022-2023 3rd CA

PAPER: PHARMACEUTICAL ORGANIC CHEMISTRY III

CODE: PT 414

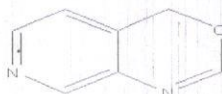
Time: 1 hr

Full Marks: 25

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5*1=5

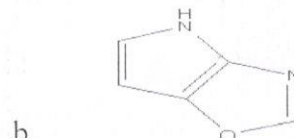
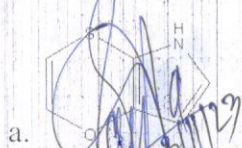
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