

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch – BIOTECHNOLOGY

MAJOR ELECTIVE COURSE –I: PHARMACEUTICAL BIOTECHNOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	Boas sign is found in _____. (a) Acute appendicitis (b) Acute cholecystitis (c) Inguinal hernia (d) Femoral hernia	K1	CO1
2	Which of the following is NOT a common route for administering medication? (a) Oral (b) Intramuscular (c) Intravenous (d) Implantation	K2	CO1
3	Which of the following promotes the excretion of basic drugs? (a) Tartarates (b) Citrates (c) Bicarbonates (d) Ammonium chloride	K1	CO2
4	Which creatinine clearance value shows moderate renal failure? (a) 120-130 ml/min (b) 20-50 ml/min (c) Below 10 ml/min (d) 70-80 ml/min	K2	CO2
5	What does FDA stand for? (a) Federal Department of Drug dministration (b) Food and Drug Act (c) Food and Drug Administration (d) Federal D rug Association	K1	CO3
6	HSA comes under which protein family? (a) Globulin (b) Receptor (c) Enzymes (d) Catalyst	K2	CO3
7	What are the characteristics of the monolithic devices? (a) The drug has a large therapeutic index (b) Aqueous solution (c) Control drug release by partitioning the drug (d) Administration of emulsions	K1	CO4
8	When a chemical splashes in the eye rinse for ____ (a) 10 minutes (b) 30 seconds (c) 5 minutes (d) 15 minutes	K2	CO4

Cont...

9	What is the name of the drug binding site I of HSA? (a) Tamoxifen binding site (b) Digitoxin binding site (c) Diazepam binding site (d) Warfarin and azapropazone binding site	K1	CO5
10	The desire to maintain a safe laboratory environment for all begins with _____. (a) Prevention (b) Microbiology (c) ubiquity (d) Accidents	K2	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Explain importance of herbal medicine in India.	K3&K4	CO1
	(OR)		
11.b.	Write short note on generics and its advantages.	K1&K4	CO2
12.a.	Enumerate absorption and metabolism of drugs by liver and kidney.		
	(OR)		
12.b.	Write a note on genotoxicity screening.	K1&K3	CO3
13.a.	Describe steps involved in novel drug discovery.		
	(OR)		
13.b.	Write short note on toxicity study of drugs.	K1&K4	CO4
14.a.	Explain targeted drug delivery system using nanoparticles.		
	(OR)		
14.b.	Illustrate modulated drug delivery system.	K3&K4	CO5
15.a.	Explain production of biopharmaceuticals with one example.		
	(OR)		
15.b.	Explain drug safety and assessment.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Question No.	Question	K Level	CO
16	Explain about the role of pharmacokinetics and pharmacodynamics in Drug profiling.	K4	CO1
17	Enumerate role of p450 in xenobiotic metabolism.	K1	CO2
18	Explain drug isolation and identification.	K3	CO3
19	Enlist and explain mode of drug delivery and passage.	K4	CO4
20	Explain about the Good Laboratory practices.	K4	CO5

Z-Z-Z

END