



End Term (Even) Semester Examination May-June 2025

Roll no.....

Name of the Program and semester: Pharmaceutical Biotechnology

Name of the Course: B. Pharm.

Course Code: BP-605 T

Time: 3 hour

Maximum Marks: 75

Note:

- (i) This question paper contains three sections
- (ii) All the sections are compulsory
- (iii) All questions should cover COs of the course as per syllabus coverage.

Section-A

MULTIPLE CHOICE QUESTION

20 X 1 = 20 MARKS

S.N	CONTENTS	
1.	The most active site of protein synthesis is the a) Nucleus b) Ribosome c) Mitochondrion d) Cell sap	CO-1
2.	What is the technology of genetic engineering? a) Recombinant Technology b) Genetic evolution c) Micro-organism evolution d) Prokaryotic evolution	
3.	Device that measures biological reactions in pharmaceutical Biotech a) Biometric device b) Biosensors c) Biome memetic device d) Biometric analyzer	
4.	The restriction of enzyme mobility in a fixed space is known as a) Enzyme immobilization b) Enzyme kinetics c) Enzyme inhibition d) Enzyme Stability	
5.	The technology that involves using enzymes to manipulate and isolate DNA segments of interest. a) rDNA technology b) Recombinant technology c) Blotting techniques d) PCR	CO-2
6.	Which enzyme cleaves the phosphodiester bond within a polynucleotide chain? a) ER	



End Term (Even) Semester Examination May-June 2025

	b) RE c) DNA ligase d) Ligase	
7.	PCR makes many copies of which DNA? a) Target segment b) Non Target segment c) Non Specific site d) Specific segment	
8.	Suitable Example of cloning vectors is: a) Bacteriophages b) BAC's c) MAC's d) MHC	
9.	T cell lymphocytes produces immunity as. a) Cellular b) Passive c) Adaptive d) Non-Cellular	CO-3
10.	Which reaction that causes rapid anaphylaxis in response to an allergen? a) Type I b) Type II c) Type III d) Type IV	
11.	Which medium is used in Hybridoma technology? a) HAT b) Peptone water c) Nutrient agar d) Glucose broth	
12. is the passive immunity transferred from the mother to its offspring? a) IgM. b) IgG. c) IgA. d) IgE.	
13.	In a Western blot, which molecule is typically detected? a) DNA b) RNA c) Protein d) Lipid	CO-4
14.	Which of the following is not a method of horizontal gene transfer in bacteria? a) Transformation	



End Term (Even) Semester Examination May-June 2025

	b) Transcription c) Conjugation d) Transduction	
15.	A mutation that changes a single base but does not change the amino acid is called a: a) Missense mutation b) Nonsense mutation c) Silent mutation d) Frameshift mutation	
16.	Jumping genes that can move within the genome are known as: a) Operons b) Plasmids c) Transposons d) Introns	
17.	Which plasmid is termed as resistant plasmid? a) R- Plasmid b) r- Plasmid c) plasmid R d) rR plasmid	CO-5
18.	Which plasmid is also called as sex factor? a) P b) X c) R d) PR	
19.	Vit B-12 comes under group of compounds known as a) Co- amines b) Cobal-amines c) Cobalamins d) Amines	
20.	Which method provide contamination free environment a) Auto Clave b) Laminar Air Flow c) Sterilization d) Fermentation	

Section B

Short Questions: Attempt any seven questions.

7x5 = 35 marks

SN	QUESTIONS	CO's
1.	Write a note on immobilization of enzymes.	CO 1
2.	Explain working, principle and application of Biosensors.	CO 1
3.	Elaborate the steps used in rDNA technology.	CO2
4.	Discuss the role of different cloning vectors.	CO 2



End Term (Even) Semester Examination May-June 2025

5.	Explain structure and function of MHC.	CO 3
6.	Write a note on blood products and plasma substitutes.	CO 3
7.	What are the general steps used in blotting techniques.	CO 4
8.	Define the term mutation and classify them.	CO4
9.	How Penicillin is produced in industry?	CO 5

Section C

Long questions: Attempt any two questions

2x10 = 20 marks

SN	QUESTIONS	CO's
1	Explain the need of hybridoma technology. And how it is performed.	CO3
2	Summarize the role of ELISA test, and how it is performed?	CO4
3	Discuss fermenter design and its various controls.	CO 5