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School of Pharmaceutical Education and Research
M. Pharm. I Semester Examination (2023-24)

Subject: Microbial and Cellular Biology
 Paper Code: MPB 102

Date: 11-03-2024

Maximum Marks: 75
 Time: Three hours

(Write your Roll No. on the top immediately on receipt of this question paper)

Note: This paper has two Sections; A and B.

Attempt all the two sections.

Section A: Answer all the questions.

Section B: Answer any 4 out of 6 questions

Abbreviations Used:

CO-Course Outcome, PO- Program Outcome, BTL- Bloom Taxonomy Level: BT level 1-Remember; BT level 2- Understand; BT level 3- Apply; BT level 4- Analyze; BT level 5- Evaluate; BT level 6- Create.

SECTION-A

Answer the following in brief (Attempt all questions)

5x3= 15 Marks

Q. No 1	Question	BTL	CO	PO
(a)	Write about function of different polymerase enzymes.	2	3	2
(b)	How prokaryotes & eukaryotic cell differ in their cell membrane.	2	3	3
(c)	Write about the sigma cycle during transcription process.	3	3	2
(d)	Write note on how nutrition effect the cell growth.	4	3	3
(e)	Explains, How DNA replication is terminated in prokaryotes?	3	3	3

SECTION B

Long type Questions (Attempt any 4 out of 6)

4x15= 60 Marks

	Question	BTL	CO	PO
Q. No 2	Write about the elongation and termination of prokaryotic transcription process.	2	3	3
Q. No 3	Discuss in detail process of initiation and elongation of DNA replication in prokaryotic cell.	3	3	2
Q. No 4	Discuss different types of viral infections and pathohistological conditions with any three suitable examples	4	3	2
Q. No 5	Write about screening procedure and maintenance of the pure microbial cultures.	5	3	3
Q. No 6	Discuss in detail about establishment cell lines, and explain how different model cell line are used for screening the new candidate drug molecule	2	3	3
Q. No 7	Write about different types of nutrition requirement for growth of microbial cell and secondary metabolites production	3	3	3