

Exam Date & Time: 03-Dec-2018 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

Specialization: Pharmaceutical Biotechnology

Date: 03-12-2018

Microbial and Cellular Biology [PBT-MPB102T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) With the help of a neat labelled diagram, explain the lysogenic cycle of bacteriophage. Mention its consequences. (10)
- 2) Elaborate on the normal microbial flora of human gut. (10)
- 3) What are biofilms? What is its structure? Explain the chemistry and functions of the biofilm matrix. (10)
- 4) Enlist with specific examples the major targets of antibacterial chemotherapy. Discuss the mechanism of action, selective toxicity and mechanism of resistance to aminoglycosides. (10)
- 5) Explain the process of transcription in prokaryotes. (10)

SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) Tetracyclines are not suitable for treating bacterial infections in a patient undergoing chemotherapy for leukaemia. Explain. (5)
- 7) Briefly outline different types of frameshift mutations. (5)
- 8) Explain the structure and types of bacterial flagella. (5)
- 9) Write a note on the role of probiotics in the prevention and treatment of diseases. (5)
- 10) Briefly describe the portals of entry and the role of colonization in the progression of a disease. (5)

-----End-----