

Question Paper

Exam Date & Time: 02-Jan-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

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

Cellular and Molecular Pharmacology [PHA-MPL104T - S3]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Discuss the general principles of signal transduction operating via G-protein coupled receptors (10)
- 2) Describe the steps involved in the process of transcription in prokaryotes. (10)
- 3) Describe the role of tRNA in aligning amino acid with its corresponding codon on mRNA template. (10)
- 4) Describe the different classes of immuno-therapeutics for treatment of cancer (10)
- 5) Explain the basic equipment, media and cell culture required to establish a cell culture laboratory (10)

SECTION - B

Answer all the questions.

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

- 6) Describe with example need for gene therapy. (5)
- 7) Describe the role of cAMP in cellular and molecular signalling (5)
- 8) Describe various processes involved in recombinant DNA technology. (5)
- 9) Explain the polymorphisms affecting drug metabolism with suitable examples (5)
- 10) Discuss the principle and applications of cell viability assays (5)

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