

Exam Date & Time: 07-Sep-2021 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

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

Proteins and Protein Formulations [PBT-MPB201T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Discuss different protein sequencing methods and their advantages. (10)
- 2) Devise a stepwise plan for purification of an intracellular thermolabile bacterial protein. Justify the selection of each step and explain the principle involved in the selected methods of protein purification. (10)
- 3) Discuss protein stability and explain the role of deamidation, oxidation and aggregation in protein stability. (10)
- 4) Discuss the novel drug delivery approaches for protein therapeutics. (10)
- 5) Enlist the steps involved in biosimilar development and explain any THREE in detail. (10)

SECTION - B

Answer all the questions.

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

- 6) Explain the major factors that influences stability of proteins. (5)
- 7) Citing suitable examples of peptides, explain the peptide bond chemistry. (5)
- 8) Write short-notes on peptidomimetic approaches in drug discovery. (5)
- 9) Write a note on absorption enhancement in protein formulations. (5)
- 10) Enlist the pharmacokinetic parameters and explain any TWO. (5)

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