

CBCS SCHEME

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21BT743

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Pharmaceutical BT and Clinical Research

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Give an account of the role of Biotechnology in drug design. (10 Marks)
- b. What is Granulation? Discuss the two types of granulation methods. (10 Marks)

OR

- 2 a. Give an account of the various packaging materials used in Pharmaceutical Industry. (10 Marks)
- b. What are Excipients? Discuss the various excipients used in the formulation of parenteral preparations. (10 Marks)

Module-2

- 3 a. Give an account of the various aspects of receptor based approaches for disease target identification. (10 Marks)
- b. The ADME of the drug determines the dosing regime of the drug. Substantiate. (10 Marks)

OR

- 4 a. Give an account of the various reactions involved in phase 1 drug metabolism. (10 Marks)
- b. CYP family enzymes have a vital role in drug metabolism. Justify. (10 Marks)

Module-3

- 5 a. Classify drugs based on the therapeutic actions with suitable examples. (10 Marks)
- b. Give an account of various types of analgesics used in Pharmacotherapy. (10 Marks)

OR

- 6 a. Analyse the importance of DOTS therapy and combination therapy in the treatment of tuberculosis. (10 Marks)
- b. Give an account of hormone replacement therapy. (10 Marks)

Module-4

- 7 a. Using Erythropoietin and insulin as examples, discuss the role of growth factors as therapeutics. (10 Marks)
- b. Discuss the preservation and clinical use of blood and blood components. (10 Marks)

OR

- 8 a. What is advanced sustained release? Discuss the various methods of advanced sustained release of drugs. (10 Marks)
- b. Write short notes on :
 - i) Safety guidelines for blood transfusion.
 - ii) Liposomes. (10 Marks)

Module-5

- 9 a. What is Safety testing? Discuss the various aspects of safety testing. (10 Marks)
b. What is Pharmacovigilance? Briefly explain the principles of pharmacovigilance. (10 Marks)

OR

- 10 a. How would you assess placebo responses? What diseases and symptoms often respond to placebo? (10 Marks)
b. Write short notes on :
i) Cross sectional study.
ii) Immunotoxicity studies. (10 Marks)
