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Question Paper Code: 2145349

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV/ DEC 2024
Fifth Semester
Biotechnology
U20BT507– BIOPHARMACEUTICAL TECHNOLOGY
(Regulation 2020)

Time: Three Hours Maximum: 100 Marks

Answer ALL questions

PART – A (10 x 2 = 20 Marks)

1. Define pharmacokinetics.

2. What is bio - availability?

3. Define renal clearance.

4. What are the factors affecting renal excretion of drugs?

5. What are the advantages and disadvantages of using halothane as an anesthetic?

6. Name 4 drugs used in anti-inflammatory action.

7. Differentiate pharmacokinetic and pharmacodynamics.

8. What is the objective of pharmacokinetic models?

9. List out the barriers of protein drug delivery.

10. What is the typical shelf life of protein-based drugs, and what factors can affect their stability over time?

PART – B (5 x 16 = 80 Marks)

11. (a) Elaborate about routes of drug administration in detail. (16)

(OR)

(b) Discuss in detail about pharmacokinetics. (16)

12. (a) Describe the Phase I and Phase II biotransformation. (16)

(OR)

(b) Illustrate renal and non - renal routes of drug excretion. (16)

13. (a) Discuss in detail about mechanism of action of antidepressant drugs with example. (16)

(OR)

(b) Demonstrate the mechanism of action of CNS stimulants. (16)

14. (a) Determine the pharmacokinetic and pharmacodynamics process of protein drugs. (16)

(OR)

(b) Compare and elaborate the various routes of drug administration of conventional and biotechnology drugs. (16)

15. (a) Explain the most effective strategies for enhancing the absorption of protein drugs, and how do these methods improve their bioavailability? (16)

(OR)

(b) Elaborate controlled and site-specific delivery of protein drug in detail. (16)

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