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Question Paper Code: UC104

B.E./B.Tech. DEGREE EXAMINATION, APRIL /MAY 2025

Professional Elective

Biotechnology

21BTV104 – BIOPHARMACEUTICAL TECHNOLOGY

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What do you mean by Pharmacoeconomics? CO1- U
2. Write a note on the term “drug”. CO1- U
3. Define Pharmacokinetics CO1- U
4. Cancer screening is looking for cancer before a person has any symptoms. Screening tests can help find cancer at an early stage, before symptoms appear. Interpret random and non-random screening. CO2-App
5. Give two examples for eye lotion with their composition CO1- U
6. Classify emulsions and its types CO1- U
7. What are the approaches designed to controlled drug delivery formulation? CO1- U
8. Interpret hydrogels in ophthalmic drug delivery systems CO2-App
9. Mention the common side effects in Streptomycin. CO1- U
10. How could you infer the actions of thyroid stimulating hormone? CO2-App

PART – B (5 x 16= 80 Marks)

11. (a) Discuss in detail about the Drug discovery and its developmental stages CO1- U (16)
Or
(b) Classify the various routes of Drug administration. CO1- U (16)
12. (a) Discuss in detail about the four stages of pharmacokinetics. CO1- U (16)
Or
(b) What is ADME and how does it fit in drug development process? CO1- U (16)

13. (a) For people who have trouble swallowing, oral liquid dose forms are preferable than pills or other solid medications, Interpret the statement. CO2- App (16)
- Or
- (b) The preservation of drugs is essential to keep their properties unchanged. Illustrate all about the materials for their preservation and packaging. CO2- App (16)
14. (a) Illustrate the barriers involved in Drug Delivery Systems. CO3- App (16)
- Or
- (b) Detail a case study to stimulate discussion around how the core principles contained could be applied to product realization programs for a biotechnology-derived monoclonal antibody. CO3- App (16)
15. (a) Explain SAR, uses & MOA of Griseofulvin, Nystatin, Amphotericin – analgesics – laxatives CO1- U (16)
- Or
- (b) Discuss in detail about hormones and corticosteroids CO1- U (16)