CBCS SCHEME

USN | | | | | | | | | | |

18BT72

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

Time: 3 hrs. Max. Marks: 100

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

Module-1

1 a. What is Drug design? Discuss the basic concepts and applications in drug designing. **(10 Marks)**

b. What are the physiochemical considerations in manufacturing herbal medicines? Explain. **(10 Marks)**

OR

2 a. Explain in detail about concept and testing of preformulation and formulation development considerations. **(10 Marks)**

b. What are the analytical methods and tests for used for various drugs? **(10 Marks)**

Module-2

3 a. Elaborate pharmacodynamics and pharmacokinetics of protein based drugs. **(10 Marks)**

b. Explain the following :
i) Disease Target identification ii) Enzyme inhibitors. **(10 Marks)**

OR

4 a. What are the need of pharmacokinetic study? Explain pharmacokinetics parameters. **(10 Marks)**

b. Elaborate evolution of drug metabolism phase – I metabolism and metabolism phase – II. **(10 Marks)**

Module-3

5 a. Explain the classification of drugs based on therapeutic actions. **(10 Marks)**

b. Write a note on :
i) Contraceptives ii) Laxatives. **(10 Marks)**

OR

6 a. Explain Pharmacotherapy of migrane , cancer and diabetes. **(10 Marks)**

b. Explain the following :
i) Hormone replacement therapy ii) Herbal health products. **(10 Marks)**

Module-4

7 a. Explain in detail about clinical importance of therapeutic proteins and enzymes. **(10 Marks)**

b. Elaborate the hormones and growth factors used as therapeutics. **(10 Marks)**

OR

8 a. What are Interferons? Explain preservation and clinical use of blood and blood components. **(10 Marks)**

b. Discuss advanced drug delivery systems in detail. **(10 Marks)**

Module-5

9 a. Discuss Pre – clinical development to support testing in humans. **(10 Marks)**

b. Explain the following :

i) Relationship between animal and human pharmacology. **(05 Marks)**

ii) Concepts of pharmacovigilance. **(05 Marks)**

OR

10 a. Explain the following :

i) Clinical Trials – informed consent ii) Placebo responses. **(10 Marks)**

b. Write a note on :

i) Clinical Research Data Management. **(05 Marks)**

ii) Clinical Research from Pharmaceutical Industry. **(05 Marks)**

* * * * *