

OR

[Pharmacology and Toxicology]



Group - A

Answer any *ten* questions : $2 \times 10 = 20$

1. What is pharmacotoxicity?
2. Define drug efficacy.
3. Which plasma protein mainly binds drugs in blood? Give an example. 1+1
4. Define pharmacodynamics.
5. What is half-life of a drug?
6. What is meant by therapeutic window?
7. Differentiate between TD_{50} and LD_{50} .
8. Write the significance of dose response curve.
9. Define therapeutic index.
10. What is receptor desensitization?
11. What is volume of distribution (V_d)?
12. What do you mean by drug clearance?
13. Write the name of any two factors affect drug absorption.
14. Define apparent volume of distribution.
15. Differentiate between acute and chronic toxicity.

**Group - B**

Answer any *four* questions : $5 \times 4 = 20$

16. Explain the significance of ED_{50} and TD_{50} with an example in determining the safety profile of a drug.
17. Briefly describe the mechanism of drug action with suitable examples.
18. What is first-pass metabolism? Discuss its clinical significance.
19. What is bioavailability? Discuss the various factors that affect the bioavailability of drugs. 8
20. Discuss the role of different factors influencing the toxicity of poisons.
21. Define NOAEL. Discuss its importance in toxicology.

Group - C

Answer any *two* questions : $10 \times 2 = 20$

22. Define dose-response relationship. Write the difference between a flat dose response curve and steep dose response curve. Explain quantal dose-response curve with its significance. 2+4+4
23. Classify the routes of drug administration. Discuss the oral and intravenous routes of drug administration with their advantages and disadvantages. 2+(4+4)

24. What is biotransformation? Describe Phase I reactions and explain Phase II reactions of drug metabolism with suitable examples. 2+(4+4)

25. What is drug toxicity? Classify the types of drug toxicity. Explain the factors affecting the pharmacotoxicity. 2+4+4

