

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2022
(Fourth Semester)

Branch – BIOCHEMISTRY

DISCIPLINE SPECIFIC ELECTIVE – II BIOCHEMISTRY OF DRUGS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 = 10)

1. Identify the route of administration of Amyl Nitrate.
(i) Subcutaneous route (ii) Inhalation route
(iii) Oral route (iv) Intravenous route
2. Find the type of drug which is absorbed by Stomach
(i) Acidic drugs (ii) Basic drugs
(iii) Neutral drugs (iv) Weak basic drugs
3. Which of the following identifies as a Trade mark?
(i) Name, Symbol (ii) Symbol, Logo
(iii) Logo, Name (iv) Name, Symbol, Logo
4. What does the symbol P represent in a QSAR equation?
(i) pH (ii) Plasma concentration
(iii) Partition coefficient (iv) Prodrug
5. Name the process of chemical alteration of a drug in the body.
(i) Administration (ii) Absorption
(iii) Biotransformation (iv) Distribution
6. Which unsubstituted carbon atom is essential for Oxidative Deamination?
(i) ω – Carbon atom (ii) γ – Carbon atom
(iii) β – Carbon atom (iv) α - Carbon atom
7. Indicate the antimetabolite of Methotrexate.
(i) Purine (ii) Pyrimidine
(iii) Folic acid (iv) Alkylating agent
8. Match the pharmacological action of Acyclovir.
(i) Antibacterial (ii) Antimalarial
(iii) Antiviral (iv) Antifungal
9. Which drug produces Tachyphylaxis?
(i) Opiates (ii) Ephedrine
(iii) Barbiturates (iv) Nitrates
10. Indicate the main aim of clinical trial, is to compare the
(i) Efficacy not Potency (ii) Efficacy and Potency
(iii) Potency not Efficacy (iv) Agonist and Antagonist

SECTION - B (35 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 7 = 35)

11. (a) Classify Drugs.
(OR)
(b) Discuss the factors that affect the drug distribution.
12. (a) Explain Computer aided drug design.
(OR)
(b) State Lipinskis Rule of 5.
13. (a) Sketch the mechanism of mechanism of Cyt P⁴⁵⁰ in drug-metabolism.
(OR)

Cont...

- (b) Illustrate the reaction of Glucuronic acid conjugation.
14. (a) Show the mode of action of Sulphonamides and explain resistance developed against microorganisms.
(OR)
(b) State the mechanism of Antiviral drugs.
15. (a) Discuss in detail on Chemical assay and Bioassay method
(OR)
(b) Explain Drug Intolerance.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16. Evaluate the various routes of drug administration.
17. Elucidate the Quantitative Structural Activity Relationship.
18. Explain the Microsomal Phase - I reactions.
19. Illustrate the antimetabolites of Purines and Pyrimidines.
20. Enumerate the Adverse Reactions to Drugs.

Z-Z-Z

END