18BCV29A/18BCU29A

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Sixth Semester)

Branch – **BIOCHEMISTRY**

DISCIPLINE SPECIFIC ELECTIVE – II :
PHARMACOKINETICS AND CLINICAL TRIALS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 x 1 = 10)

1. The classification of drugs based on ..... is the most useful one for medicinal chemists?
   i) Pharmacological effect (ii) Drug action
   (iii) Chemical structure (iv) Molecular targets

2. Which of the following is a type of drug receptor protein that is located in cytoplasm and includes thyroid and steroid hormone receptors?
   (i)G-protein coupled receptors (ii) Multi subunit ion channels
   (iii) Protein kinase (iv) Transcription factors

3. More than 95% drugs are absorbed by this mechanism.
   i) Dissolution (ii) Diffusion
   (iii)Passive diffusion (iv) Direct absorption

4. Which one of the following is the principal organ for drug excretion?
   i) Liver (ii) Kidneys (iii) Lungs (iv)Sweat glands

5 Quinine is a well-known drug used to treat .....
   i) Typhoid (ii)Malaria (iii)Paralysis (iv)All of the above

6 Which of the following drug is an example for class IA anti-arrhythmic drugs.
   (i) Quinidine (ii) Diclofenac
   (iii)Paracetamol (iv) Lidocaine

7 Following are the phase-I reactions except .....
   i) Oxidative reactions (ii)Hydrolytic reactions
   (iii) Reductive reactions (iv) Sulphide reactions

8 Which enzyme is important in the phase-II reactions?
   i) Esterase (ii) Amidases
   (iii) Transferases (iv) Aldo-keto reductase

9 What is placebo?
   i) The subjects do not know which study treatment they receive
   ii) Patients injected with placebo and active doses.
   iii) Fake treatment
   iv) Signed document of the recruited patient for the clinical trial procedures

10 Essential in ethics and ethical standards is .....
   i) A good grasp of research methods
   ii) The capacity to produce good research
   iii) A good understanding of business
   iv) The capacity to distinguish between right and wrong.

Cont...

SECTION - B (35 Marks)

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

11 a. Explain the requirement of an ideal drug.

(OR)

b. Write a note on types of drug receptors.

12. a. Write a short note on modern drug delivery system.

(OR)

b. Explain the role of protein in drug distribution.

13. a. Explain the action of drugs on CNS.

(OR)

b. Explain the mode of action of Aspirin.

14. a. Explain the lipid soluble drugs.

(OR)

b. Write a note on drug tolerance.

15. a. Describe the standardization of herbal drugs.

(OR)

b. Explain the ICMR ethical guidelines for biomedical research on human participants.

SECTION - C (30 Marks)

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

16. Explain the mechanism of drug resistance.

17. Describe the mechanism of excretion of drugs.

18. Discuss the various chemotherapeutic agents.

19. Elaborate the phase-II metabolism of drugs.

20. Write the CPCSEA guidelines for care and use of animal in scientific research.

Z-Z-Z END