

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2024
(Sixth Semester)

Branch – BIOCHEMISTRY
DISCIPLINE SPECIFIC ELECTIVE – II :
PHARMACOKINETICS & CLINICAL TRIAL

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Identify the source of caffeine
 - i) Microbe
 - ii) animal
 - iii) plant
 - iv) genetic engineering
- 2 Which of the following route has 100% bioavailability?
 - i) Topical
 - ii) intravenous
 - iii) rectal
 - iv) oral
- 3 QSAR is an abbreviation for
 - i) Qualitative Structure Analysis Relationships
 - ii) Quiet Structure Analysis by Researchers
 - iii) Quantitative Structure-Activity Relationships
 - iv) Quick Structure Analysis Reasoning
4. The decrease in response to a drug that is used repeatedly and also requires higher amount of drug is needed to produce drug response is
 - i) drug resistance
 - ii) drug tolerance
 - iii) drug sensitivity
 - iv) drug effect
- 5 Identify the process ensures that clients possess the information necessary to make an informed decision about participation in biomedical study
 - i) Informed consent
 - ii) disclosure
 - iii) disclaimer
 - iv) participation consent

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Narrate on sources of drugs.
OR
b. Describe bacterial pharmacophore.
- 7 a. Explain the factors affecting drug absorption.
OR
b. Analyze the different routes of drug excretion.
- 8 a. Sketch the structure and mode of action on paracetamol.
OR
b. Discuss briefly on mechanism of action of L-dopa.
- 9 a. Describe on lipid and water-soluble drugs.
OR
b. Explain briefly on drug toxicity to man.

Cont...

- 10 a. Comment briefly on personalized drugs.
OR
b. Describe on ICMR ethical guidelines for Biomedical research on Human participants.

SECTION -C (30 Marks)

Answer ALL questions
ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a. Categorize briefly on classification of drugs.
OR
b. Elucidate the MDR mechanism.
- 12 a. How drugs are absorbed at different sites of the body?
OR
b. Explain distribution of drug through blood brain barrier & vascular beds.
- 13 a. Discuss on classes of drugs acting on CNS with mechanism of action.
OR
b. Explain mode of action of Gentamycin and Streptomycin.
- 14 a. Discuss Phase I drug metabolism.
OR
b. Explain different reactions involved in Phase II drug metabolism.
- 15 a. Outline the different phases and types of clinical trials.
OR
b. Organize the roles and guidelines formed by CCSEA for care and use of animals in scientific research.

Z-Z-Z END