

Exam Date & Time: 28-Sep-2020 (02:00 PM - 05:45 PM)



PSG COLLEGE OF ARTS AND SCIENCE

Note: Writing 3hrs: Checking & Inserting Image : 30mins

MSc DEGREE EXAMINATION MAY 2020
(Fourth Semester)

Branch - BIOCHEMISTRY

DISCIPLINE SPECIFIC ELECTIVE - II - BIOCHEMISTRY OF DRUGS [18BCP19A]

Marks: 75

Duration: 210 mins.

SECTION A

Answer all the questions.

- 1) Find the type of drugs which are easily absorbed by stomach.
(i) Acidic drugs
(ii) Basic drugs
(iii) Neutral drugs
(iv) Weak basic drugs (1)
- 2) Name the term which includes absorption, distribution, metabolism and elimination of a drug.
(i) pharmaco dynamics
(ii) pharmaco therapeutics
(iii) pharmaco genomics
(iv) pharmaco kinetics (1)
- 3) Which of the following enzyme is responsible for processing HIV protein during the production of new viruses?
(i) Integrase
(ii) Protease
(iii) Reverse Transcriptase
(iv) DNA Polymerase (1)
- 4) Identify the term "WIPO" from the following
(i) World Investment Policy Organization
(ii) World Intellectual Property Organization
(iii) Wildlife Investigation and Policing Organization
(iv) World Institute for Prevention of Organized Crime (1)
- 5) Indicate the mechanism of glucuronic acid conjugation reaction.
(i) Microsomal Phase - I
(ii) Non-Microsomal Phase - I
(iii) Microsomal Phase - II
(iv) Non-Microsomal Phase - II (1)
- 6) (1)

Which type of undistributed carbon atom is required for oxidative deamination reaction?

- (i) α - carbon atom (ii) β - carbon atom
(iii) γ - carbon atom (iv) ω - carbon atom

- 7) Identify the competitive inhibitor of P-Amino Benzoic acid.
(i) Sulphonamide
(ii) Strptomycin
(iii) Tetracycline
(iv) Chloramphenicol (1)
- 8) Match the combination of Cotrimoxazole.
(i) Sulfamethoxazole + Sulfasalazine
(ii) Sulfamethoxazole + Sulfadoxine
(iii) Trimethoprim + Sulfamethoxazole
(iv) Trimethoprim + Sulfacetamide (1)
- 9) Which drug produces Tachyphylaxis?
(i) Ephedrine
(ii) Barbiturates
(iii) Nitrates
(iv) Opiates (1)
- 10) Identify the term related to lower threshold to normal pharmacological action of a drug.
(i) Drug Tolerance
(ii) Drug Resistance
(iii) Drug Allergy
(iv) Drug Intolerance (1)

SECTION B

Answer all the questions.

- 11) Discuss in detail on protein binding and drug distribution. (7)
- a)
[OR] Illustrate the different types of binding forces involved in Drug-Receptor interaction. (7)
b)
- 12) State Lipinski's Rule of 5. (7)
- a)
[OR] Explain the importance of combinational chemistry in drug development. (7)
b)
- 13) Sketch the non-microsomal phase-I reactions with example. (7)
- a)
[OR] Discuss in detail on induction of drug metabolizing enzymes. (7)
b)

- 14) Determine the biochemical mechanism involved in drug resistance. (7)
- a)
[OR] Show the mechanism of action of Aulphasnomide. (7)
b)
- 15) Discuss the various actors that modify the effect of a drug. (7)
- a)
[OR] Explain the following terms: (i) Idiosyncrasy (ii) Tachyphlaxis (7)
b)

SECTION C

Answer 3 out of 5 questions.

- 16) Enumerate the various routes of drug administration and mention the advantages and disadvantages of each route. (10)
- 17) Construct computer assisted drug design. (10)
- 18) Elucidate the phase-II reactions of drug metabolism. (10)
- 19) Determine the mechanism of action of anticancer agents. (10)
- 20) Evaluate the various drug assay methods. (10)

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