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SARDAR PATEL UNIVERSITY No. of Printed Pages : 2

M.Sc. (Integrated) Biotechnology (IGMBT), Eight Semester Examination

Wednesday, 27th March 2019

SEAT No. _____

02:00 P.M. to 5:00 P.M

PS08CIGMB4: Essentials of Pharmacology

Total Marks: 70

Note: (1) Figures to the right indicate marks.

(2) Draw a neat and labeled diagram, wherever necessary.

Q.1 Choose the most appropriate answer from the four alternatives given: [8]

- (1) Which of the following is prodrug?
(a) Prontosil (b) Saquinavir (c) stavudine (d) none of them
- (2) Cyclization reactions includes in: (a) Phase 1 reactions (b) Phase 2 reactions
(c) both of them (d) none of them
- (3) Which of the following is local anesthetic drug?
(a) Lidocaine (b) catacholamine (c) succinyl choline (d) barbiturates
- (4) Which of the enzyme is metabolized Adrenomimetic drug :
(a) Catechol- P- methyl transferase (b) Catechol- O- ethyl transferase
(c) Catechol- O- methyl transferase (d) none of the above
- (5) Acarbose is classify in :
(a) Glucose inhibitor (b) Glucosidase inhibitor
(c) Glucogenic inhibitor (d) all of them
- (6) Action of salbutamol is:
(a) Bronchodilation (b) Bronchoconstriction (c) Increase heart rate (d) none of the Above
- (7) Which of the following antibacterial drug act on cell membrane integrity?
(a) vancomycin (b) tetracycline (c) polymaxin B (d) none of them
- (8) Mercaptopurine is a :
(a) Alkylating agent (b) Purine analogue (c) natural product (d) all of the above

Q.2 Answer any SEVEN from the following: [14]

- (1) What is bioavailability of the drug?
- (2) Enlist various factor affects the drug action
- (3) List out the factors affecting oral route of administration.
- (4) What are local anesthetics? Explain in brief.
- (5) Define parasympathomimetics.
- (6) How angina pectoris occurs?
- (7) Write brief account on expectorant.
- (8) Give two examples of antihelminthic drugs
- (9) Briefly explain the mechanism of action of Alkylating agents

(1)

(PTO)

- Q.3 (a) Discuss local route of drug administration in brief. [6]
(b) How physical state and chemical properties of drug influence on pharmacodynamic properties of drug? Explain in brief. [6]

OR

- (b) Discuss the factor affecting absorption of oral drug in detail [6]

- Q.4 (a) Write a brief overview on cholinergic neurotransmission and the drugs affecting cholinergic neurotransmission [6]

- (b) (1) Give brief account on synthesis of ephedrine and nor ephedrine from phenylalanine (2) metabolism of Catecholamines [3+3]

OR

- (b) Give classification of the NMJ blocking drugs. Write brief account on *Leptocurares* [6]

- Q.5 (a) Explain the pharmacology of various pharmaceutical agents used to treat bronchial asthma. [6]

- (b) Write detail account on oral antidiabetic drug [6]

OR

- (b) List the various classes of drugs used in the treatment of hypertension and add a note on the mechanism of action of thiazide diuretics and beta-blockers in management of hypertension [6]

- Q.6 (a) Describe mechanism of actions of action of fluoroquinolones and sulfonamides in detail. [6]

- (b) Write detail account on alkylating agents. [6]

OR

- (b) Write detail account on drugs used to treat *Nematodes*. [6]

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