Sc

SEAT No._____ No. of printed pages: 02

[191]

SARDAR PATEL UNIVERSITY

M.Sc. (Chemistry), Semester – IV

March 26, 2019 :: Tuesday

Time: 02:00 P.M. – 05:00 P.M.

MEDICINAL CHEMISTRY [PS04ECHE01] :: (OLD COURSE)

Note: Figures to the right indicate full marks. **Total marks: 70**

Q-1 **Select the correct answer and mention only the code of correct answer against their question numbers.** [08]

a. Drugs that are intended to act in the brain must be designed so that they have_____
(i) maximum numbers of polar groups. (iii) no polar groups.
(ii) minimum numbers of polar groups. (iv) none of above

b. Which drug used as an antianginal agents?
(i) nitro glycerine (iii) actinomycin-D
(ii) iproniazid (iv) melphalan

c. In phase-II reaction of drug metabolism,
(i) Polarity of drug is increased (iii) Solubility of drug is increased
(ii) Polarity of drug is decreased (iv) Solubility of drug is decreased

d. Receptors are made up of _____
(i) carbohydrates (ii) amino acids (iii) lipids (iv) steroids

e. Which of the following drugs is from Antineoplastic class
(i) Mechlorethamine (iii) nalidixic acid
(ii) Nialamide (iv) none of these

f. Which of the following are act as a chemical messengers?
(i) neurotransmitter (ii) proteins (iii) hormones (iv) (i) and (iii)

g. Which is not a hallucinogenic drug?
(i) psilocyn (iii) protriptyline
(ii) protriptyline (iv) psilocybin

h. A molecule present in the Gram -Ve bacteria, which is toxic to the animal cell is?
(i) Teichoic acid (iii) Porin protein
(ii) Lipoprotein (iv) Lipopolysaccharide

Q-2 **Answer ANY SEVEN of the following in short.** [14]

a. Define the terms. i) Pharmacokinetics ii) Pharmacodynamics
b. What are different approaches to lead discovery?
c. Most peptide hormones are synthesized as preprohormones. Explain
d. What is Angina? Explain its causes.
e. Explain mode of action of monoamine oxidase inhibitors (MAOI's)
f. Write the mode of action of β-lactum in Gram +Ve bacteria.
g. Define tumour and explain its types.
h. Write a note on Agonist.
i. Define solid phase synthesis of combinatorial chemistry.

(P.T.O.)

Q-3 [A]	What is Prodrug? Discuss its applications with examples.	[06]
Q-3 [B]	Explain the different routes of drug administration.	[06]
	OR	
Q-3 [B]	What is biotransformation? Write a note on Phase-I biotransformation reactions.	[06]
Q-4 [A]	Explain the type of receptors in detail.	[06]
Q-4 [B]	Define antagonist. Explain various types with example.	[06]
	OR	
Q-4 [B]	Explain signalling through neurotransmitter.	[06]
Q-5 [A]	Give the synthesis of following drugs. (i) Diazepam (ii) Imipramine (iii) Hydralazine	[06]
Q-5 [B]	What is sedative and hypnotics? Write SAR of Barbiturates.	[06]
	OR	
Q-5 [B]	Explain the various pharmacological action of Antipsychotics.	[06]
Q-6 [A]	Write the synthesis of followings (i) Ampicillin (ii) Pefloxacin (iii) Ifosfamide	[06]
Q-6 [B]	Give detailed classification of Alkylating agent. Write mode of action of nitrogen mustard.	[06]
	OR	
Q-6 [B]	What are antibiotics? What are the characteristics of Ideal antibiotics? Explain peptidoglycan in detail.	[06]

**********X**********

(2)