[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2064)

14787

B. Pharmacy 6th Semester Examination

Pharmaceutical Chemistry (Medicinal Chemistry-I)

HBP-302

Time : 3 Hours **Max. Marks : 80**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : (i) Attempt five questions in all. Select one question each from section A, B, C and D. Question number 9 of section E is compulsory.

(ii) All questions carry equal marks.

SECTION - A

1. What is Drug design? Discuss the physico-chemical aspects (optical and geometrical) in drug design. (16)

2. Explain the bioisosterism. Discuss the applications of bioisosterism in drug design. (16)

SECTION - B

3. Write a note on drug receptor interactions with suitable examples. (16)

4. Define QSAR. Discuss the hydrophobic and steric parameters used in QSAR. (16)

SECTION - C

5. Write a note on Computer Aided Drug Design (CADD). (16)

6. Discuss a note on drugs affecting uterine motility. (16)

SECTION - D

7. What are cholinomimetic agents? Discuss the SAR, mode of action and uses of cholinomimetics. Write the synthesis of any one cholinomimetic agent. (16)

8. Write a brief note on non-opioid analgesics and anti-inflammatory agents. (16)

SECTION - E

9. Answer all the following:

   State whether the following sentences are *true* or *false.*

   (i) Lead identification is the first step in the drug discovery process.

   (ii) Vander Waal's bonding is the strongest bonding between drug and receptor interaction.

   (iii) Pharmacophore is defined as a group of atoms in a molecule responsible for the bioactivity.

   (iv) Certain prostaglandins are used in the induction of labour.

   (v) Mechanism of action of neostigmine is muscarinic antagonist.

   (vi) Propranolol belongs to the group of a-blocking agent and containing quinazoline ring.

   (vii) Ethanolamines are characterized by the presence of a CHO connecting moiety (X) and a two or three carbon atom chain as the linking moiety between the key diaryl and tertiary amino groups.

   (viii) Omeprazole is 7-hydroxy-4-methylcoumarin derivative and active at neural pH which block the H_2 receptor.

   (8×2=16)