

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

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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)

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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 α -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)