Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.–6)

PHARMACEUTICAL CHEMISTRY-VI

(Medicinal Chemistry-I)

Subject Code : BPHM-601

Paper ID : [A2264]

Time : 3 Hrs. Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.**

SECTION-A

1. Answer briefly :

a. Give chemical structure and name of any one H_1 receptor antagonist.

b. What is riboflavine? What is its importance?

c. Give structure of a drug where stereochemistry changes biological activity.

d. Give the structures of two adrenergic neurotransmitters.

e. What are organophosphates? Give their general structure.

f. Name four direct acting cholinergic agents.

g. Give chemical structure of anticholinergics from natural sources.

h. What are anticoagulants? Give examples.

i. Give the chemical structure of one prostaglandin used as uterine stimulant.

j. Name the enzymes for metabolism of norepinephrine. What is its primary metabolite?

k. What are the various classes of antiparkinsonian drugs?

l. Give chemical structure of acetylcholine. What is its disadvantage for use in therapy?

m. Give the structure of a β_2- selective adrenergic agent with its use.

n. What is logP? How does it affect biological activity of drugs?

o. Classify eicosanoids.

SECTION-B

2. Give the chemical structure, chemical name, therapeutic uses, mechanism of action and synthesis of salbutamol.

3. Discuss NSAIDs from the class of propionic acid derivatives.

4. Discuss structure activity relationships of H_2 receptor antagonists.

5. Discuss the biosynthesis, release and metabolism of acetylcholine.

6. Give the nomenclature, uses and mechanism of action of tropane alkaloids.

SECTION-C

7. What are sympathomimetics? Discuss giving relevant examples, the structural features of sympathomimetic agents contributing towards their potency and receptor selectivity.

8. What are anticholinesterases? What is their mechanism of action? Give an account of the chemistry of reversible anticholinesterases used in therapy.

9. Give chemical structure, chemical name and uses of the following :

   a. Chlorpheniramine

   b. Indomethacin

   c. Isoprenaline

   d. Dicyclomine

10. Discuss the chemistry of any one synthetic class of antimuscarinic agents with relevant examples.