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

Total No. of Pages : 02

Total No. of Questions : 13

B.Pharma (2017 Batch) (Sem.-4)

MEDICINAL CHEMISTRY-I

Subject Code : BP-402T

M.Code : 75844

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.**
3. **SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.**

SECTION-A

1. Answer briefly :

a) Give structures of **any two** direct cholinesterase inhibitors.

b) Enumerate the biosynthetic pathway of acetylcholine.

c) What is the significance of pKa value in drug action?

d) Give mechanism of action of halothane.

e) What do you understand by isosteric replacement?

f) Give synthesis of phenylephrine.

g) Write the structure and uses of salbutamol.

h) Give structure and chemical name of **any one** β1-blocker.

i) Write down an example of benzodiazepine acting as antiepileptic agent.

j) Justify "*the effect of geometrical isomerism on biological activity*".

SECTION-B

2. Classify NSAIDs with examples. Give a detailed account on phenylpropionic acid derivatives.

3. Outline the synthetic schemes of the following drugs :

   (a) Phenytoin

   (b) Dicyclomine

   (c) Carbachol

   (d) Carbamazepine

4. Write a detailed account on Phase 1 metabolic reactions with appropriate examples.

SECTION-C

5. Give the salient chemical features and nomenclature of benzomorphan based opioids.

6. "*Conformational isomerism leads to multiple modes of biological actions*". Justify.

7. Comment upon irreversible cholinesterase inhibitors.

8. Write down the SAR of phenothiazine class of antipsychotic agents.

9. Classify antiepileptic agents giving at least two examples from each class.

10. Give structure, chemical name, mechanism of action and therapeutic uses of propanolol.

11. Comment upon cardioselective β-blockers.

12. Discuss SAR of barbituric acid derivatives.

13. Outline the biosynthesis and metabolism of adrenaline.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.