

B.Pharm III Year I Semester (R15) Supplementary Examinations June 2018

MEDICINAL CHEMISTRY – I

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Define prodrug with a suitable example.
 - Define receptor and its types.
 - Write the structure of pilocarpine and mention its action.
 - Give the structure and use of ephedrine.
 - What are sedatives and name two drugs used for sedation?
 - Name four drugs used as antipsychotics.
 - Explain the uses of methyl xanthenes.
 - Name four drugs used as anti-depressants.
 - Discuss the nature and structure of cocaine.
 - Explain the chemical classification of general anaesthetics.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 Explain the term biotransformation and its different phases. How does it affect the biological activity?

OR

- 3 Define and explain the importance of partition coefficient, chelation and solubility properties of a drug in relation to its biological activity.

UNIT – II

- 4 What are adrenergic drugs and classify them? Describe the steps involved in the chemical synthesis of isoprenaline.

OR

- 5 Explain about the cholinergic receptors and describe the synthesis and mechanism of action of succinylcholine.

UNIT – III

- 6 Define the term hypnotics and classify them giving example to each class. Brief the SAR of barbiturates.

OR

- 7 Give the synthesis, use and mechanism of action of carbamazepine and haloperidol.

UNIT – IV

- 8 What are local anaesthetics? Classify general anaesthetics with example, outline the synthesis of halothane.

OR

- 9 Define anti-depressant drug? Explain about the SAR of tricyclic antidepressants.

UNIT – V

- 10 What are CNS stimulants? Write the synthesis of imipramine. Explain about Meyer-overton theory.

OR

- 11 Write the structure and uses of the following:
(i) Phenelzine. (ii) Methamphetamine. (iii) Fluoxetine. (iv) Doxapram.
