Code: 15R00501

R15

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)

(a) Define prodrug with a suitable example.
(b) Define receptor and its types.
(c) Write the structure of pilocarpine and mention its action.
(d) Give the structure and use of ephedrine.
(e) What are sedatives and name two drugs used for sedation?
(f) Name fours drugs used as antipsychotics.
(g) Explain the uses of methyl xanthenes.
(h) Name four drugs used as anti-depressants.
(i) Discuss the nature and structure of cocaine.
(j) 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.

*****