

Code: 15R00501

**R15**

B.Pharm III Year I Semester (R15) Regular Examinations November 2017

**MEDICINAL CHEMISTRY – I**

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- Write a note on chelation.
  - Explain how the steric features of drugs affect the biological activity.
  - Write the structure and uses of acetylcholine.
  - Name four neuromuscular blocking agents.
  - What are anticonvulsants? Give examples.
  - Write the structure and mechanism of action of glutethimide.
  - What are MAOIs?
  - Define analeptics and name two analeptic drugs.
  - What are general anaesthetics and classify them?
  - Write the structure and mechanism of action of lignocaine.

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Describe about enzyme stimulation and enzyme inhibition in relation to concentration of the substrate.

**OR**

- 3 Illustrate Phase-I and Phase-II reactions of drug metabolism with suitable examples.

**UNIT – II**

- 4 What are sympathomimetic agents? Classify sympathomimetics with examples and write one structure for each group.

**OR**

- 5 Write a note on reversible cholinesterase inhibitors. Outline the synthesis of dicyclomine.

**UNIT – III**

- 6 What are antipsychotics? Give their mechanism of action. Classify them with examples. Write the SAR of phenothiazines.

**OR**

- 7 What are anticonvulsants? Classify them with two examples of each class. Explain the method of synthesis of phenytoin.

**UNIT – IV**

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

**OR**

- 9 Write the structure and uses of the following:

- Doxapram.
- Tranylcypromine.
- Lysergic acid.
- Fluoxetine.

**UNIT – V**

- 10 Classify general anaesthetics and write one structure for each group. Explain about Meyer-overton theory.

**OR**

- 11 Describe about the adjuvants used along with local anaesthetics and state reasons for the same. Write the structure of cocaine and lignocaine.