

T.Y.B.PHARM. SEMESTER-V (CBCS - 2015 COURSE) :

WINTER - 2017

SUBJECT : MEDICINAL CHEMISTRY-I

Day : **Thursday**
Date : **09/11/2017**

Time : **10.00 AM TO 01.00 PM**
Max. Marks : **60**

W-2017-3800

N. B. :

- 1) **Q. No. 1 and Q. No. 5** are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
 - 2) Answers to both the sections should be written in **SEPARATE** answer books.
 - 3) Figures to the **RIGHT** indicate full marks.
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SECTION-I

- Q.1** Attempt **ANY FIVE** of the following (10)
- a) Give principle behind isosteric replacement in drug design.
 - b) Draw structures, IUPAC names and category of i) Neostigmine bromide ii) Malathion.
 - c) State therapeutic uses, MOA & side effects of endocrine antagonist
 - d) Outline synthesis of Acetazolamide **OR** Aminophylline
 - e) Discuss biosynthesis, storage & metabolism of Ach.
 - f) Write about nicotinic & muscarinic receptors.
- Q.2** a) What are the various physicochemical parameters which must be considered while designing of a drug. Elaborate on stereochemical aspects. (07)
b) Discuss ACh esterase's with examples. (03)
- Q.3** a) Classify diuretics. Add a note on chemistry & SAR of diuretics. (07)
b) State Fergusson's principle. (03)
- Q.4** Write short notes on **ANY TWO** of the following (10)
- a) SAR of anticholinergic agents
 - b) Antimuscarinic agents
 - c) Outline synthetic schemes of Mersalyl and Demecarium bromide.

SECTION II

- Q.5** Attempt **ANY FIVE** of the following (10)
- a) Draw structures, IUPAC names and category of i) Diltiazem ii) Isoprenaline.
 - b) Outline synthesis of Prazocin **OR** Dantrolone sodium.
 - c) Discuss metabolism pathway of epinephrine.
 - d) Write about cardiotonics.
 - e) State Easson Stedman Hypothesis.
 - f) Classify α -adregnergic agonists.
- Q.6** a) Classify ganglionic agents giving one representative structure of each class. Add a note on neuromuscular nerve transmission. (07)
b) Discuss chemistry of indirect acting sympathomimetics. (03)
- Q.7** a) Classify antianginals. Add a note on vasodilators. (07)
b) Write SAR of antiarrhythmic agents. (03)
- Q.8** Write short notes on **ANY TWO** of the following (10)
- a) Chemistry of antihypertensive agents.
 - b) β - blockers.
 - c) Outline synthetic schemes of Guanethidine and Methyl Dopa.

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