

**T.Y.B.PHARM. SEMESTER-V (2011 COURSE) : WINTER -
2017**

SUBJECT : MEDICINAL CHEMISTRY – I

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

Time **10.00 AM TO 01.00 PM**
Max. Marks : 80

W-2017-3830

N. B. :

- 1) **Q. No. 1 and Q.No.5 are COMPULSORY.** Out of remaining solve any **TWO** questions each from **Section – I** and **Section – II**.
- 2) Answers to both the sections should be written in the **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** Draw structures of **Any FIVE** drugs and mention their category **(10)**
- a) Bethanechol
 - b) Atropine
 - c) Isoprenaline
 - d) Neostigmine
 - e) Succinyl choline
 - f) Xylometazoline
 - g) Homatropine
- Q.2** a) Discuss in detail the mechanism of hydrolysis of Acetyl Choline E by enzyme. **(10)**
Add a note on how this has been used as a strategy to inhibit the enzyme.
- b) Discuss biosynthesis, storage and metabolism of Acetyl Choline. **(05)**
- Q.3** a) Discuss effect of solubility, dissociation constant and stereochemical aspects **(10)**
on action of a drug.
- b) Outline synthesis of Methyl dopa and Guanethidine. **(05)**
- Q.4** Write short notes on **Any THREE** of the following : **(15)**
- a) Solanaceous alkaloids and their therapeutic agents
 - b) Neuromuscular blockers
 - c) Reversible acetylcholinesterase inhibitors
 - d) Bioisoterism
 - e) Ferguson principle

P.T.O.

SECTION - II

- Q.5** Draw structures of **Any FIVE** drugs from the following and mention their category (10)
- a) Diltiazem
 - b) Furosemide
 - c) Propranolol
 - d) Terbutaline
 - e) Prazocin
 - f) Aminophylline
 - g) Spironolactone
- Q.6** a) Classify antihypertensives with examples. Explain the mode of action of ACE inhibitors. (10)
- b) Discuss Chemistry and SAR of thiazides in detail. (05)
- Q.7** a) Classify adrenergic agonist with a note on indirect acting sympathomimetics. (10)
- b) Outline scheme of synthesis for (05)
- i) Methyldopa
 - ii) Prazocin
- Q.8** Write short notes on **Any THREE** of the following : (15)
- a) Cardiac Glycosides
 - b) SAR of direct sympathomimetics
 - c) β - Blockers
 - d) Calcium channel blockers
 - e) Classification of sulphonamides