

**M. SC. (ORGANIC CHEMISTRY) SEM-III (CHOICE BASED
CREDIT & GRADE SYSTEM) : WINTER - 2017
SUBJECT: MEDICINAL CHEMISTRY**

Day : Friday
Date : 10/11/2017

Time : 03.00 PM TO 06.00 PM
Max. Marks : 60

W-2017-0781

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SEPARATE** answer books.

SECTION – I

Q.1 Attempt **ANY THREE** of the following: **[15]**

- a) What are chemotherapeutic agents?
- b) Define the term 'assay of drugs' and write steps involved in chemical assay method.
- c) Explain with suitable example:
 - i) Surface active agent
 - ii) Drug.
- d) Write note on: LD - 50.
- e) Explain: The metabolism of a drug is affected by various factors.

Q.2 Attempt **ANY THREE** of the following: **[15]**

- a) Write in brief or as flow sheet, the oxidation in metabolism of a drug containing aromatic compounds.
- b) Write the phase I reactions of drug metabolism.
- c) What is pharmacophore? How a drug binds to receptors?
- d) Describe in brief glycine conjugation in metabolism of drugs.
- e) Explain the concept of metabolic antagonism with suitable example.

SECTION – II

Q.3 Attempt **ANY THREE** of the following: **[15]**

- a) Give structure of 6 – APA and write its importance in synthesis of penicillin-G.
- b) Give the structure of isoniazid and explain its action as antitubercular agent.
- c) Give SAR of dihydrostreptomycin.
- d) Give the synthesis of Amoxicillin.
- e) Write mode of action of cephalosporins.

Q.4 Write short notes on **ANY THREE** of the following: **[15]**

- a) SAR of 4 – aminosalicylic acid
- b) Inhibition of bacterial protein synthesis
- c) First line antitubercular drugs
- d) β – lactam antibiotics
- e) Cell wall synthesis in bacteria

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