

M. SC. (ORGANIC CHEMISTRY) SEM-III (CHOICE BASED
CREDIT & GRADE SYSTEM) : SUMMER - 2018

SUBJECT: MEDICINAL CHEMISTRY

Day: Saturday
Date: 28/04/2018

S-2018-0881

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

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 Answer ANY THREE of the following: (15)

- a) Define the term assay and explain in brief biological assay method
- b) Write the SAR of 4-amino salicylic acid
- c) Give structure and mechanism of action of streptomycin
- d) Discuss the term- i. pharmacodynamics ii. Pharmacophore
- e) What is tuberculosis? Enlist various drugs used in therapy to cure tuberculosis

Q.2 Answer ANY THREE of the following: (15)

- a) Write mechanism of isoniazide.
- b) Discuss clinical trials of drugs with reference to LD⁵⁰ and ED⁵⁰
- c) Define the term i. toxicology ii. Drug
- d) Explain the term antimetabolite with example
- e) What are clinical trials? Give the significance

SECTION – II

Q.3 Solve ANY THREE of the following: (15)

- a) Enlist various types of phase II reactions in drug metabolism and write mechanism of any one reaction type in brief.
- b) Define the term and give example- Broad spectrum antibiotic
- c) Give mechanism of action of valinomycin on solute transport across bacterial cell membrane
- d) Give the general mechanism of action of the drugs that inhibit bacterial cell wall synthesis
- e) Explain giving example- oxidation reaction as a mechanism of drug metabolism

Q.4 Solve ANY THREE of the following: (15)

- a) Define the term, give use and example- Antibiotic
- b) Name the components of C450 and give role of each component in drug metabolism
- c) Enlist various factors that affect drug metabolism
- d) Write the mechanism of glucuronidation reaction in drug metabolism
- e) Write the mechanism of hydroxylation reaction in drug metabolism

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