

MASTER OF SCIENCE (CHEMISTRY) (CBCS - 2018 COURSE)
M.Sc. (Chemistry) Sem-III OC : WINTER- 2022
SUBJECT : MEDICINAL CHEMISTRY

Day : Tuesday

Time : 02:00 PM-05:00 PM

Date : 3/1/2023

W-20153-2022

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Answer to both the sections should be written in **SAME** answerbook.
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SECTION – I

- Q.1** Answer **ANY THREE** of the following. **(15)**
- a) Comment on - Phases of clinical trial of drugs.
 - b) Explain the term New drugs.
 - c) Discuss the following terms
 - i) Toxicology
 - ii) Pharmacodynamics
 - d) Write the mechanism and SAR of streptomycin.
 - e) Define assay. Explain in short immunological assay.
- Q.2** Answer **ANY THREE** of the following. **(15)**
- a) Give structure, mechanism and SAR of Isoniazide.
 - b) Define the term Chemotherapy and explain the mechanisms of Chemo therapeutic action.
 - c) Describe Metabolites and Antimetabolites.
 - d) Explain the term Drugs and Adulterated drugs.
 - e) Write classification of antimycobacterial drugs, the name and structure of any one example of each class.

SECTION – II

- Q.3** Answer **ANY THREE** of the following. **(15)**
- a) Explain with suitable examples the following reactions in drug metabolism pathway.
 - i) Oxidation
 - ii) Reduction
 - b) Write the short note on β lactam antibiotics.
 - c) Schematically explain 70 s initiation complex formation in protein synthesis.
 - d) Write the structure and mechanism of action of Amoxicillin.
 - e) Explain the term drug metabolism and enlist various factors that influence drug metabolism.
- Q.4** Answer **ANY THREE** of the following. **(15)**
- a) Write note on CYP450.
 - b) Explain conjugation of drug with amino acid, giving suitable example.
 - c) What are antibiotics? With a suitable diagram describe various targets for antibiotics.
 - d) Write the pathway for synthesis of THF and antibiotics that inhibit THF synthesis.
 - e) Explain the antibacterial effect of quinolones.

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