

M.Sc.(Chem.) Semester - 3 (CBCS) Examination
DEC/JAN. - 2020 - [NEW COURSE]
Medicinal Chemistry (Elective-1 (New))

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figure to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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- Q.1 (a) Answer the following question** **4**
1. Discuss the discovery of Penicillins.
- Q.1 (b) Answer any two questions out of three.** **10**
- (1) Discuss in details drug discovery process.
(2) Explain the lead discovery through Clinical observations.
(3) Explain the drug discovery through Random Screening.
- Q.2 (a) Answer the following question** **4**
1. What is Craig's Plot? How it is used in drug design.
- Q.2 (b) Answer any two questions out of three.** **10**
- (1) Discuss Lipophilic parameters used in QSAR studies.
(2) Discuss Ring-Chain Transformations approach for lead modification.
(3) Discuss the SAR of Sulfa drugs as antibacterial agents.
- Q.3 (a) Answer the following question** **4**
1. Classify the organs according to highest, moderate and lowest perfusion rate.
2. Excretion of Drug
- Q.3 (b) Answer any two questions out of three.** **10**
- (1) Explain passive diffusion in Drug absorption.
(2) Write a note on Polymorphism and amorphism.
(3) Discuss structure and physiology of cell membrane.
- Q.4 (a) Answer the following question** **4**
1. What is affinity and efficacy?
2. What is Pharmacodynamics?
- Q.4 (b) Answer any two questions out of three.** **10**
- (1) Discuss oxidation reaction in Phase-I biotransformation process.
(2) Discuss full agonist, inverse agonist, Partial agonist, antagonist with diagram.
(3) Describe Therapeutic window in detail.
- Q.5 (a) Answer the following question** **4**
1. What is the role of prodrug to improve taste and odour?
- Q.5 (b) Answer any two questions out of three.** **10**
- (1) Discuss pool and split method for peptide synthesis.
(2) Write a note on Furka's mix and spit method.
(3) How prodrug concept can be useful to alter solubility and minimize pain at the site of injection?
