

M.Sc.(Chem.) Semester - 3 (CBCS) Examination
OCT/NOV-2024 (AS PER SYLLABUS YEAR JUNE-2019)
Medicinal Chemistry (Elective-1 (New))

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Q.1 (A) Answer the following (04)**
1) What is serendipity? Discuss the discovery of Penicillin.
- Q.1 (B) Answer any two questions out of three. (10)**
1) Draw the flow chart and Stepwise diagram of drug discovery processes.
2) Explain the lead discovery through Clinical observations.
3) How to increase potency of the lead compound by functional group modification.
- Q.2 (A) Answer the following (04)**
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) Explain Hammett equation used in QSAR studies with examples.
3) Write a note on Furka's mix and spit method.
- Q.3 (A) Answer the following (04)**
1) Discuss the routes of drug administration.
- 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 (04)**
1) What is affinity and efficacy?
2) Define agonist and antagonist with examples.
- Q.4 (B) Answer any two questions out of three. (10)**
1) Discuss Phase-I reactions in biotransformation process.
2) Enlist different type of receptors. Explain G-protein coupled receptors in detail.
3) Describe ED₅₀ and Therapeutic window.
- Q.5 (A) Answer the following (04)**
1) What is hard drug and soft drug?
2) Define prodrug and enlist its uses.
- Q.5 (B) Answer any two questions out of three. (10)**
1) Discuss bipartite and Mutual prodrug with examples.
2) What is the role of prodrug to improve taste and odour? Explain with examples.
3) Discuss Bioprecursor prodrug with two examples?
