

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?
