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MSC4ascE0112

Seat No: _____

**M.Sc. Semester - 4 (CBCS) Examination
March/April- 2018
ADVANCED MEDICINAL CHEMISTRY
(ELECTIVE - 1)**

Time: 2:30 Hours

Marks: 70

Instructions:

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

Q.1 Answer any **seven** of the following ten questions. (14)

1. Explain the term (i) MIC (ii) LD₅₀ (iii) IC₅₀
2. What is Lead compound ? Explain briefly.
3. What is IPR ?
4. Define (i) Efficacy (ii) Potency
5. Discuss (i) Agonist (ii) Antagonist
6. Explain 'Fick's law of Diffusion'
7. Write applications of prodrug.
8. What is polymorphism ? Give one example.
9. Enlist various route for drug administration.
10. What is SAR ? Give one example.

Q.2 Answer any **two** of the following three questions. (14)

1. Write a note on furka's mix and split method for combinatorial library.
2. Enlist various techniques for lead identification.
3. Explain briefly: (i) Hard drug (ii) Soft drug (iii) Prodrug

Q.3 Answer the following questions. (14)

1. Discuss synthesis of ticlodipine.
2. Enlist Phase-I reactions with examples.

OR

Q.3 Answer the following questions. (14)

1. Enlist Phase-II reactions with examples.
2. Discuss asymmetric synthesis of (S) cetirizine hydrochloride.

Q.4 Answer any **two** of the following three questions. (14)

1. Write a note on various lead modification strategies.
2. Give synthesis of enantiomerically pure (+) clopidogeral.
3. Enlist conditions of patentability and non-patentable inventions.

Q.5 Answer any **two** of the following four questions. (14)

1. Give synthesis of Tamiflu.
2. What is bioisosterism ? Explain with examples.
3. Write a note on Pharmacodynamics studies.
4. Describe various mechanism of absorption of drug.
