Examination, June 2017

**Choice Based Credit System (CBCS) Medicinal Chemistry - I** 

Time: Three Hours

Maximum Marks: 60

Note: i) Attempt any five questions.

- ii) All questions carry equal marks.
- Explain bioisosterism and its role in medicinal chemistry.
  - b) Write on stereochemical aspects affecting drug metabolism.
- Discuss principle of phase I and phase II drug metabolism citing examples.
  - b) Explain how biological action of drugs is affected by ionization, chelation and optical isomerism. Give suitable examples.

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- Exemplify direct and indirect acting sympathomimetic agents giving their structures.
  - b) Write examples of alpha and beta adrenergic blockers. Discuss SAR of beta blockers.

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- 4. a) Write examples of reversible and irreversible cholinesterase inhibitors giving their structures.
  - Give name and structures of a few natural and synthetic cholinergic blocking agents. In brief discuss SAR of cholinolytic agents.

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- Name different classes of drugs acting on CNS. Discuss role of barbiturates and benzodiazepines giving chemical synthesis of one drug under each category?
  - Discuss SAR of phenothiazines.
- Write synthesis of a drug under phenothiazine and fluoro butyrophenone series.
  - Classify anti convulsants. Discuss their mechanism of action.
- Discuss SAR of hydantoins and metabolic fate of any drug under this category.
  - Name some inhalation anaesthetics and ultra short acting barbiturater. Discuss how general anaesthetics work.

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- Classify nareotic and non nareotic analgesics giving their chemical structures.
  - Discuss SAR of morphine analogs. Write synthesis and metabolism of any one anti-inflammatory agent.

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