

Time allowed: 3 Hours

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

- Q.1 Briefly answer the following- 1×12
- Clinical uses of propranolol
  - IUPAC name of cyclopropane
  - Draw the structure of gentamicin and streptomycin
  - Differentiate between penicillin's and cephalosporin's
  - Common mechanism of action of tetracycline
  - Write structure of any two anti mycobacterium drugs
  - What are antitussive agents
  - Draw structure of phenytoin and its IUPAC name
  - Name one long acting barbiturates and its clinical use
  - Structure of isoprenaline
  - What is combinatorial chemistry
  - What is drug designing
- UNIT I**
- Q.2 a) Classify antiarrhythmic drugs and their common mode of action with suitable example. 6,6
- b) Explain drug metabolism reactions with suitable example 6,6
- Q.3 Discuss the following-
- Structure, synthesis and clinical uses of cyclosporine
  - Structure of any two sulphonamides and their therapeutic uses
- UNIT II**
- Q.4 a) Classify local anesthetic with suitable example 6,6
- b) Discuss the mechanism of action and synthesis of cyclopropane 6,6
- Q.5 Discuss mechanism of action and clinical uses of the following
- Indomethacin
  - Bromohexine
- UNIT III**
- Q.6 Give synthesis and uses of the following 6,6
- Pentobarbitone sodium
  - Theophylline
- Q.7 Draw the structure and mechanisms (any two drugs) of the following categories - 6,6
- Antidepressant drug
  - Benzodiazepines
- UNIT IV**
- Q.8 a) Discuss the storage, release and metabolism of any one catecholamine with suitable structures 6,6
- b) Write a note on "discovery of lead compounds" 6,6
- Q.9 Write note on the following
- Lead based methods
  - Combinatorial chemistry

x-x-x