

Sl.No:M21206

Course Code: BP402T

**VINAYAKA MISSION'S RESEARCH FOUNDATION**  
(Deemed to be University) , SALEM

**B.PHARM. DEGREE EXAMINATION – October 2021**  
**Fourth Semester**

**MEDICINAL CHEMISTRY - I**

Time : Three hours

Maximum: 75 marks

I. Write essays on any **TWO** questions: (2 x 10 = 20)

1. What are the various physiochemical properties involved in biological action? Write on Partition coefficient, Solubility and Hydrogen bonding.
2. Classify the drugs acting on sympathetic nervous system. Summarize on the SAR of sympathomimetic agents. Engrave the synthesis of Salbutamol.
3. Classify sedatives and hypnotic drugs. Write the SAR of Barbiturates and the synthesis of Barbitol.

II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)

4. Brief note on Bioisosterism.
5. Discuss on the Biosynthesis of catecholamines.
6. Draw the structure and uses of the following
  - i) Epinephrine
  - ii) Methyldopa
  - iii) Naphazoline
  - iv) Propranolol
  - v) Tolazoline
7. Sketch the synthesis and mechanism of action of Neostigmine.
8. Discuss on the SAR of Cholinolytic drugs.
9. Summarize on the SAR of Phenothiazines.
10. Mechanism of action of hydantoins as anticonvulsant drugs and the synthesis of Phenytoin.
11. Mechanism of action of inhalation anaesthetics and the synthesis of Halothane.
12. Illustrate on Narcotic analgesics. Draw the structure and uses of Morphine sulphate and Fentanyl citrate.

III. Write short notes on : (10 x 2 = 20)

13. What is chelation?
14. List out the different types of drug metabolism.
15. Write the synthesis of Phenylephrine.
16. Name any two alpha adrenergic blockers.
17. Name the different types of cholinergic receptors and mention their distribution.
18. Draw the structure and uses of Pilocarpine.
19. Name any four Benzodiazepines class of drugs that are used as sedatives and hypnotics.
20. Write the structure and uses of Promazine hydrochloride.
21. What are ultra short acting barbiturates? Give examples.
22. List out the names of any four NSAIDs.

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