

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

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

**PHARMACEUTICAL ORGANIC CHEMISTRY I**

Time : Three hours

Maximum: 75 marks

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

1. Define Elimination reaction. Describe the mechanism, kinetics and stereochemistry of E1 and E2 reactions.
2. Explain the Halogenation of alkanes with examples.
3. Explain the mechanism of free radical addition reaction of alkenes with examples.

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

4. Explain the basicity of amines.
5. Explain Saytzeffs rule with examples.
6. Describe in detail about electrophilles and nucleophilles with examples.
7. Explain about Markownikoff's rule of alkene.
8. IUPAC nomenclature of alcohol.
9. Detail note on Ozonolysis.
10. Write a note on benzoin condensation with its mechanism.
11. How to differentiate primary, secondary and tertiary alcohols?
12. E1 versus E2.

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

13. Define hydrogen bonding with one example.
14. Medicinal uses and structure of Lactic acid and amphetamine.
15. 1, 4 addition of conjugated dienes.
16. Why aniline is less basic than ammonia?
17. Write any two qualitative tests of amides.
18. Structure and use of vanillin and propylene glycol.
19. IUPAC name of HO – CH<sub>2</sub> – CH<sub>2</sub> – CH<sub>2</sub> – COOH.
20. Define and classify alcohols.
21. Write the structure of the following
  - i) 1 – methyl pentene
  - ii) 2 – ethyl butane
22. Define Cannizzaro reaction.