Sl.No: M21415 Course Code: BP202T

# VINAYAKA MISSION'S RESEARCH FOUNDATION (DEEMED TO BE UNIVERSITY), SALEM

## B.PHARM. DEGREE EXAMINATION – JULY 2019 Second Semester

#### PHARMACEUTICAL ORGANIC CHEMISTRY - I

Time: Three hours Maximum: 75 marks I. Write essays on any **TWO** questions:  $(2 \times 10 = 20)$ 1. a) Write the  $E_1$  and  $E_2$  reactions of alkylhalides and explain with its kinetics and order of reactivity and rearrangement of carbocations. (7)b) Write a note on saytzeffy orientation and evidences. (3) 2. Write the following names reactions with the mechanism. a) Aldol condensation  $(2\frac{1}{2})$ b) Benzoin condensation  $(2\frac{1}{2})$  $(2\frac{1}{2})$ c) Perkin condensation d) Cannizaro reaction.  $(2\frac{1}{2})$ 3. a) Write  $SN_1$  versus  $SN_2$  reactions and factors affecting  $SN_1$  and  $SN_2$ (5) b) Write a note on basicity of amines and effect of substituents on basicity? (5)

## II. Write short answers on any **SEVEN** questions:

 $(7 \times 5 = 35)$ 

- 4. Explain inductive effect of carboxylic acids and write in detail about qualitative tests of carbohydrates?
- 5. Write the structure and uses of ethylalcohol, glycerol. Chlorobutanol, benzylalcohol, propylene glycol.
- 6. Write a not eon nucleophilic addition reactions of carbonyl compounds and explain with its mechanism.
- 7. Explain stereochemistry of  $SN_1$  and  $SN_2$  reactions of alkylhalides.
- 8. Classify organic compounds with structures and write the IUPAC name.
- 9. Explain SP<sup>3</sup> hybridization in alkanes and SP<sup>2</sup> hybridization in alkenes with examples?
- 10. Write the  $E_1$  verses  $E_2$  reactions and factors effecting  $E_1$  and  $E_2$  reactions.
- 11. Write the free radical addition reactions of conjugated dienes with reactions.
- 12. Explain electromeric effect of carbonyl compounds and write the qualitative tests of carbonyl compounds?

### III. Write short notes on:

 $(10 \times 2 = 20)$ 

- 13. What is structural isomerism and explain with example?
- 14. Write the IUPAC name of

- 15. Write the uses of paraffins.
- 16. Write about Markownikoff's orientation.
- 17. Write the structure and uses of ethanolamine and amphetamine.
- 18. Write the reactions of crossed Aldol condensation.
- 19. Write any two qualitative tests of amides.
- 20. Write the structure and uses of lacticacid, tartaric acid.
- 21. Write the structure and uses of Hexamine, Vanillin, cinnamaldehyde.
- 22. Write the effect of substituents on acidity of carboxylic acids.

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