Sl.No: M21929 **Course Code: BP202T**

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

B.PHARM. DEGREE EXAMINATION – JANUARY 2020
Second Semester

PHARMACEUTICAL ORGANIC CHEMISTRY I

Time : Three hours Maximum: 75 marks

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

1. a) Write the SN_1 and SN_2 reactions of alkylhalides and explain with its kinetics and order of reactivity and stereochemistry? (7)
   b) Write a note on factors affecting SN_1 and SN_2 reactions. (3)
2. Write the following named reaction with the mechanism.
   a) Crossed aldol condensation. (2½)
   b) Benzoin condensation. (2½)
   c) Crossed cannizaro reaction. (2½)
   d) Aldol condensation. (2½)
3. a) Write E_1 versus E_2 reactions and factors affecting E_1 and E_2 reaction. (5)
   b) Write a note on acidity of carboxylic acids and effects of substituent on acidity? (5)

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

4. Write the basicity of amines and write in detail about qualitative tests of amines?
5. Write the structure and uses of ethylchloride, chloroform, methyl alcohol, Glycerol, propylene glycol.
6. Write a note on elimination reactions of alkylhalides and explain with examples.
7. Write a note on electrophilic addition reactions of alkenes and write the reaction of ozonolysis.
8. Write the structure and IUPAC name of organic compounds of each class.
9. Write about of halogenation of alkanes and write the used of paraffins.
10. Write the free radical addition reactions of alkenes and explain anti Markownikoff's orientation.
11. What is allylic rearrangement and explain stability of conjugated dienes?
12. Explain inductive effect of carboxylic acids and write in detail qualitative tests of carbonylicaids.

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

13. What is diels –alde reaction and write the reaction?
14. Write the IUPAC name of

a) $CH_3 - CH_2 - CH(Cl) - CH_2 - CN$

b) $CH_3 - CH = CH - CH_2 - COOH$

15. Write about Markownikeff's orientation.
16. Write a note on Sp^3 hybridization in alkanes.
17. Write any two qualitative tests of esters.
18. Write the structure and uses of Iodeform trichloroethylene.
19. Write SN_1 versus SN_2 reactions.
20. Write the qualitative tests of carbonyl compounds.
21. Write the structure and uses of Dimethyl phthalate methyl salicyclate.
22. Write the stereochemistry of SN_1 and SN_2 reactions.

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