

Q.2 Answer the following short questions. (Any TEN)

(20)

1. Triphenyl methyl cation is more stable than benzyl cation, Why?
2. Enlist a factors affecting the strength of organic acids.
3. Enlist the various postulates of Resonance theory.
4. Boiling point of alcohol is higher than comparable ether and Aldehyde, Why?
5. Write a reaction for acid catalyzed dehydration of alcohol.
6. Outline the structure and physical properties of ethers.
7. Define term "Cannizaro reaction".
8. Write a reaction for Aldol condensation reaction.
9. Write a reaction for Reimer-Tiemann reaction.
10. Define term "Reductive amination".
11. Give various uses of Diazonium Salt.
12. Write a reaction for Hofmann elimination reaction.

Q. 3 Write a notes on "Inductive effect" and "Steric effect".

(10)

OR

Q. 3 Write a notes on "Hydrogen bonds" and "Theories of acids and bases".

(10)

Q. 4 Write a notes on "Oxymercuration-demercuration" and "Addition of Grignard reagent in carbonyl compound".

(10)

OR

Q. 4 Discuss the "Acid catalyzed dehydration of alcohol" and "Williamson Synthesis" of ethers.

(10)

Q. 5 Explain the following:

(10)

- A. Nucleophilic addition to aldehydes and ketones can be catalyzed by acid.
- B. Acidity of α -hydrogen of aldehydes and ketones.

OR

Q. 5 Write notes on "Transesterification" and "Hell-Volhard-Zelinsky reaction".

(10)

Q. 6 Write a notes on "Reactions of amine with nitrous acid" and "Hinsberg Test".

(10)

OR

Q. 6 Write a synthesis of "1,2,3-tri-bromobenzene from *p*-nitroaniline" and "*o*-Bromo toluene from Toluene".

(10)

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