

- 10) Isomers of a substance must have the same -----.
- a) Structural formula
 - b) Physical properties
 - c) Chemical properties
 - d) Molecular formula
- 11) E_1 reaction is ----- step process.
- a) One step process
 - b) Two step process
 - c) Three step process
 - d) None of them
- 12) SN_1 reaction occurs through the intermediate formation of -----.
- a) Carbocation
 - b) Carbon ions
 - c) Free radicals
 - d) None of them
- 13) Which of the following compound does not contain a C=O bond?
- a) Aldehyde
 - b) Ester
 - c) Amine
 - d) Ketones
- 14) In Diels Alder reaction, Dienophile having -----.
- a) Electron donating group
 - b) Electron withdrawing group
 - c) Both a & b
 - d) None of them
- 15) Chlorobutanol is used as -----
- a) Sedative
 - b) Hypnotic
 - c) Weak local anesthetic
 - d) All of above
- 16) Aldol condensation does not occur between -----.
- a) An aldehyde and ester
 - b) Two different aldehydes
 - c) An aldehyde and ketone
 - d) Two different ketones
- 17) Aldehydes react with Fehling's solutions gives -----.
- a) Blue coloration
 - b) White coloration
 - c) Violet Precipitate
 - d) Red precipitate
- 18) What is Jones reagent?
- a) CrO_3 in acidic media
 - b) Conc. H_2SO_4
 - c) Dil. HCl
 - d) $HNO_3 + H_2SO_4$
- 19) Ethyl acetoacetate shows -----.
- a) Metamerism
 - b) Tautomerism
 - c) Functional isomerism
 - d) Geometrical isomerism
- 20) Alkanes that contain 5-17 atoms are in -----.
- a) Solid state
 - b) Gaseous state
 - c) Liquid state
 - d) Plasma

- 2. Solve any two.** **2x10**
=20
- a) Explain in detail basicity of amines and effect of substituents on basicity. Give the methods of preparation of aliphatic amines.
 - b) Explain in detail unimolecular nucleophilic substitution reaction.
 - c) Explain in detail nucleophilic addition reactions of carbonyl compounds.

- 3. Solve any seven.** **7x5**
=35
- a) Write an exhaustive note on Perkin condensation.
 - b) Write a note Markonikov's rule.
 - c) Write an exhaustive note on halogenation of alkanes.
 - d) Write a note on electrometric effect.
 - e) Discuss in detail about isomerism in organic compounds.
 - f) What are dienes? Explain the stability of conjugated dienes over isolated dienes.
 - g) Write a note on qualitative test of esters.
 - h) Discuss the effect of substituents on the acidity of Carboxylic acids.
 - i) Write structure and uses of Cetosteryl alcohol and chloroform.
