

- 12) An acceptor of pair of electrons is termed as.
 - A) Nucleophile
 - B) Electrophile
 - C) Carbocation
 - D) Anion.
- 13) Formation of a single product from the two reactants molecule is known as.
 - a) Addition Reaction
 - B) Elimination Reaction
 - C) Substitution Reaction
 - D) Oxidation Reaction
- 14) Actual number of every type of molecule which is present in compound is represented by.
 - A) Molecular formula
 - B) Empirical formula
 - C) Structural formula
 - D) Skeletal formula.
- 15) Relative formula C_3H_6 is of molecule
 - A) Propene
 - B) Ethane
 - C) Propane
 - D) Butane
- 16) As compared to its parent alkane, an alkyl radical contains.
 - A) One less carbon
 - B) One less Hydrogen
 - C) One more carbon
 - D) One more Hydrogen.
- 17) Propane (C_3H_8) and butane (C_4H_{10}) in liquid forms are used in.
 - A) LSG
 - B) LPG
 - C) ECG
 - D) LNG.
- 18) Formic acid is also called as.
 - A) Methanoic Acid
 - B) Ethanoic Acid.
 - C) Carboxylic Acid
 - D) Acetone
- 19) Natural gas mostly consists of
 - A) Ethane
 - B) Butane
 - C) Methane
 - D) Pentane
- 20) Which of the following statement regarding the E_1 reaction is wrong.
 - A) Reaction by the E_1 mechanism are unimolecular in the rate determining step.
 - B) Reaction by E_1 mechanism are generally first order.
 - C) Reaction by E_1 mechanism usually occurs in one step.
 - D) Reaction by E_1 mechanism are multistep reactions.

2. Solve any two questions.

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- 1) Discuss sp^3 and sp^2 hybridizations of alkane and alkene, along with, Discuss the electrophilic addition reactions of alkenes.
- 2) Define dienes, classify them, and explain addition reactions of Dienes.
- 3) Discuss SN_1 and SN_2 reactions and its mechanisms & compare them.

3. Solve any seven questions.

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- 1) Discuss Markovnikov's Rule
- 2) Discuss basicity of amines.
- 3) Explain rearrangement of carbocations.
- 4) Explain Cannizzaro reaction.
- 5) Give various qualitative tests used for the detection of alcohols.
- 6) Explain Allylic rearrangement.
- 7) Write a note on stability of conjugated Dienes.
- 8) Discuss the role of inductive effect on acidity of carboxylic acid.
- 9) Explain E_1 reactions & its mechanism.
