

6. Which of the following will undergo addition reactions?

- (a) CH₄ (b) C₃H₈ (c) C₂H₆ **(d) C₂H₄**

7. When ethanoic acid is treated with NaHCO[^] the gas evolved is

- (a) H₂ **(b) CO₂** (c) CH₄ (d) CO

8. Ethanol on complete oxidation gives

- (a) acetic acid/ethanoic acid **(b) CO₂ AND WATER**
(c) ethanal (d) acetone/ethanone

9. Which of the following will give a pleasant smell of ester when heated with ethanol and a small quantity of sulphuric acid?

- (A) CH₃COOH** (b) CH₃CH₂OH (c) CH₃OH (d) CH₃CHO

10. Name the functional group present in CH₃COCH₃.

- (a) Alcohol (b) Carboxylic acid **(c) KETONE** (d) Aldehyde

11. Why does carbon form compounds mainly by covalent bonding?

- (a) There are four electrons in the outermost shell of carbon.
(b) It requires large amount of energy to form C⁴⁺ or C⁴⁻.
(c) It shares its valence electrons to complete its octet.
(d) ALL THE ABOVE.

12. Addition reactions are undergone by

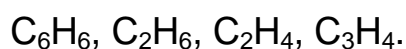
- (a) saturated hydrocarbons (alkanes) (b) only alkenes
(c) BOTH ALKENES AND ALKYNES (d) only alkynes

13. Identify 'A' in the following reaction:



- (A) CH₃COONa** (b) CH₂(Na)COOH (c) NaOH (d) NaHCO₃

14. Which of the following belongs to homologous series of alkynes?

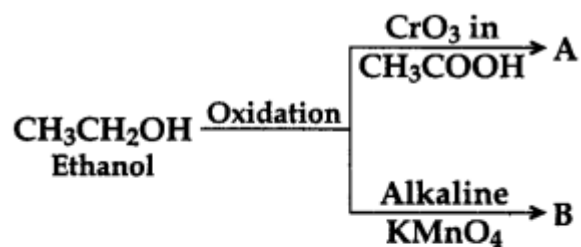


- (a) C₆H₆ (b) C₂H₄ (c) C₂H₆ **(d) C₃H₄**

15. A hydrocarbon has four carbon atoms. Give its molecular formula if it is an alkene.

- (a) C₄H₁₀ **(b) C₄H₈** (c) C₄H₆ (d) C₄H₄

16. Identify A and B



- (a) CH_3CHO , CH_3COOH
Ethanal, Ethanoic acid
- (b) CH_3COOH , CH_3CHO
Ethanoic acid, Ethanal
- (c) CH_3CHO , $\text{CO}_2 + \text{H}_2\text{O}$
Ethanal
- (d) CH_3COOH , $\text{CO}_2 + \text{H}_2\text{O}$
Ethanoic acid

ANSWER: A

17. Give the IUPAC name of $\text{CH}_3\text{COOC}_2\text{H}_5$.

- (a) Ethyl ethanoic acid (b) Butanoate
- (c) ETHYL ETHANOATE** (d) Ethyl methyl carboxylic acid

18. The first member of the alkyne homologous series is

- (a) propyne **(b) ETHYNE** (c) methane (d) ethene

19. In diamond, each carbon atom is bonded to four other carbon atoms to form

- (a) a hexagonal array **(b) A RIGID THREE-DIMENSIONAL STRUCTURE**
- (c) a structure of a ring (d) a structure in the shape of a football

20. A soap molecule has a

- (a) hydrophobic head and hydrophobic tail
- (b) hydrophobic head and hydrophilic tail
- (c) hydrophilic head and hydrophilic tail
- (D) HYDROPHILIC HEAD AND HYDROPHOBIC TAIL**
