HYDROCARBONS

1. 'X' is heated with sodalime and gives ethane 'X' is (AFMC 2005)

- 1) methanoic acid
- 2) ethanoic acid
- 3) Propanoic acid
- 4) either (1) or (3)
- 2. The addition of unsymmetrical reagents to unsymmetrical alkenes occurs in such away that the negative part of the addendum goes to that carbon atom of the double bond which carries lesser number of hydrogen atoms is called by (AFMC 2004)
 - 1) Saytzeff rule

2) Markownikov's rule

3) Kharasch effect

- 4) Anti sayt zeff rule
- 3. 3-phenyl propene on reaction with HBr gives (as a major product) (AIIMS 2003)
 - 1) C₆H₅CH₂CH(Br)CH₃

2) C₆H₅CH(Br)CH₂CH₃

3) C₆H₅CH₂CH₂CH₂ Br

- 4) $C_6H_5CH(Br)CH = CH_2$
- 4. Main constituent of LPG is

(AFMC 2009)

- 1) Methane
- 3) H₂, CH₄, Isobutane

- 2) Isobutane, Propane
- 4) None of these
- 5. The compound 'X' in the reaction

(AIIMS 2007)

$$+ICl \xrightarrow{Anhy.AlCl_3} X$$

- Enthalpy of hydrogenation of cyclohexene is -119.5 kJmol⁻¹. If resonance energy of benzene is -6. 150.4 kJmol⁻¹, its enthalpy of hydrogenation would be (AIPMT 2006)
 - 1) -358.5 kJmol⁻¹
- 2) -508.9 kJmol⁻¹
- 3) -208.1 kJmol⁻¹
- 4) -269.9 kJmol⁻¹
- 7. Which of the compounds with molecular formula C₅H₁₀ yields acetone on ozonolysis? (AIPMT 2007)
 - 1) 2-methyl-1-butene 2) 2-methyl-2-butene
- 3) 3-methyl-1-butene 4) cyclopentane

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8. The major product obtained on monobromination (Br₂/FeBr₃) of the following compound 'A'



is

(AIIMS 2006)

9. Benzene reacts with CH₃Cl in the presence of anhydrous AlCl₃ to form (AIPMT 2009)

- 1) Tolene
- 2) Xylene
- 3) Chlorobenzene
- 4) Benzyl chloride

10.
$$H_3C - CH - CH = CH_2 + HBr \rightarrow A$$
; A (predominantly) is

(AIPMT 2008)

1)
$$CH_3 - CH - CH - CH_3$$
 $Br \quad CH_3$

2)
$$CH_3 - CH - CH - CH_3$$

3)
$$CH_3 - CH - CH_2 - CH_2Br$$

4)
$$CH_3 - CH - CH_2 - CH_3$$

11. The chlorination of ethane is an example for which type of the following reactions? (EAMCET-12)

(1) Nucleophilic substitution

(2) Electrophilic substitution

(3) Free radical substitution

(4) Rearrangement

- 1) Propene
- 2) 2-Butene
- 3) 1-Butene
- 4) 2-Pentene

13. Which one of the following does not give precipitate with ammonical cuprous chloride? (EAMCET-2011)

1)
$$H_3C-CH_2-C \equiv CH$$

2)
$$H_3C-C = CH_2$$

3)
$$HC \equiv CH$$

4)
$$H_3C - C \equiv CH_3$$

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14. Which of the following statement is NOT correct?

(EAMCET-2012)

- (1) The six carbons in benzene are sp² hybridised
- (2) Benzene has $(4n+2)\pi$ electrons
- (3) Benzene undergoes substitution reactions
- (4) Benzene has two carbon carbon bond lengths, $1.54\overset{0}{A}$ and $1.34\overset{0}{A}$

KEY