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Hydrocarbons

1.	X' is heated wi	th soda lime and	l gives ethane 'X	C'is (AFMC	2005)
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- 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 a way 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) Markovnikov's rule

3) Kharasch effect

- 4) Anti saytzeff rule
- 3. 3-phenyl propene on reaction with HBr gives (as a major product)

(AIIMS 2003)

(AFMC 2009)

- 1) C₆H₅CH₂CH(Br)CH₃
- 3) C₆H₅CH₂CH₂CH₂ Br

- 2) $C_6H_5CH(Br)CH_2CH_3$
- 4) $C_6H_5CH(Br)CH = CH_2$

- 4. Main constituent of LPG is

 - 1) Methane

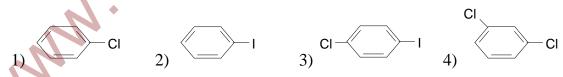
2) Isobutane, Propane

3) H₂, CH₄, Isobutane

- 4) None of these
- 5. The compound 'X' in the reaction

(AIIMS 2007)

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



- 6. Enthalpy of hydrogenation of cyclohexene is -119.5 kJmol⁻¹. If resonance energy of benzene is -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

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7. Which of the compounds with molecular formula C_5H_{10} yields acetone on ozonolysis? (AIPMT 2007)

- 1) 2-methyl-1-butene
- 2) 2-methyl-2-butene
- 3) 3-methyl-1-butene
- 4) Cyclopentane

8. The major product obtained on monobromination $(Br_2/FeBr_3)$ 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)
$$CH_3 - CH - CH - CH_3$$

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

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

4)
$$CH_3 - CH_1 - CH_2 - CH_3$$

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

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12. Which one of the following alkenes gives only ethanol on ozonolysis?

(EAMCET-2011)

1) Propene

2) 2-Butene

3) 1-Butene

4) 2-Pentene

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

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

2) $H_3C-C = CH_2$

3) $HC \equiv CH$

4) $H_3C - C \equiv CH_3$

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

1) 3 2) 2 3) 1 4) 2 5) 2 6) 3 7) 2 8) 2 9) 1 10) 4

11) 3 12) 2 13) 2 14) 4