

CLASS : XII<sup>th</sup>  
DATE :

SUBJECT : CHEMISTRY  
DPP NO. : 7

## Topic :-HALOALKANES AND HALOARENES

- PCl<sub>5</sub> reacts with propanone, to give:

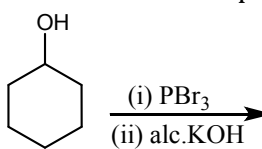
a) Gem dichloride      b) Vic dichloride      c) Propanal      d) Propane chloride
- Which is not present in Grignard reagent?

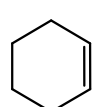
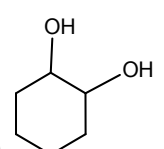
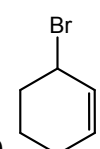
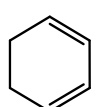
a) Carboxylic radical represented by COOH  
b) Magnesium represented by Mg  
c) Alkyl radical represented by R  
d) Halide radical represented by X
- Alkyl iodide reacts with NaCN to give alkyl cyanide and small amount of alkyl isocyanide. Formation of these two products is due to the

a) ionic character of NaCN      b) nucleophilic character of CN<sup>-</sup>  
c) ambidentate character of CN<sup>-</sup>      d) Electrophilic character of CN<sup>-</sup>
- Which of the following gives iodoform test?

a) CH<sub>3</sub> - CH<sub>2</sub> (OH)  
b) C<sub>2</sub>H<sub>5</sub>CHO  
c) (CH<sub>2</sub>OH)<sub>2</sub>  
d) None of the above
- C<sub>2</sub>H<sub>5</sub> Br can be obtained in the laboratory by the action of ethyl alcohol with:

a) KBr      b) NH<sub>4</sub>Br      c) Br<sub>2</sub>      d) KBr and conc. H<sub>2</sub>SO<sub>4</sub>
- Predict the product,



a)       b)       c)       d) 
- Trichloro acetone reacts with lime water to form:

a) CH<sub>3</sub>CHO      b) CHCl<sub>3</sub>      c) CH<sub>3</sub>Cl      d) CH<sub>3</sub>OH

8. When 32.25 g of ethyl chloride is subjected to dehydrohalogenation reaction the yield of the alkene formed is 50%. The mass of the product formed is (atomic mass of chlorine is 35.5)
- a) 14 g                      b) 28 g                      c) 64.5 g                      d) 7 g
9. Which one of the following possess highest m.pt. ?
- a) Chlorobenzene      b) *o*-dichlorobenzene      c) *m*-dichlorobenzene      d) *p*-dichlorobenzene
10. Which of the compounds when brominated turns to *meso* 2, 3-dibromobutane?
- a) *Cis*-2-butene      b) *Is*o-butane      c) Butane      d) *Trans*-2-butene
11. Iodoform can be obtained on warming NaOH and iodine with
- a)  $\text{CH}_3 - \text{CH}_2 - \text{CH}(\text{OH})\text{CH}_3$       b)  $\text{O} = \text{C}(\text{CH}_3)_2$
- c)  $\text{CH}_3 - \text{C}(=\text{O}) - \text{OCH}_3$       d)  $(\text{CH}_3)_3\text{CCH}_2\text{OH}$
12. 1-chlorobutane on reaction with alcoholic potash gives
- a) 1-butene      b) 1-butanol      c) 2-butene      d) 2-butanol
13.  $\text{S}_{\text{N}}1$  reaction is favoured by:
- a) Non-polar solvents  
 b) More no. of alkyl group on the carbon atom attached to the halogen atom  
 c) Small groups on the carbon attached to the halogen atom  
 d) None of the above
14. What mass of isobutylene is obtained from 37 g of tertiary butyl alcohol by heating with 20%  $\text{H}_2\text{SO}_4$  at 363 K, if the yield is 65%?
- a) 16 g      b) 18.2 g      c) 20 g      d) 22 g
15. Tertiary alkyl halides are practically inert to substitution by  $\text{S}_{\text{N}}2$  mechanism because of
- a) Steric hindrance      b) Inductive effect      c) Instability      d) Insolubility
16. Identify the set of reagents/reaction conditions 'X' and 'Y' in the following set of transformations:
- $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br} \xrightarrow{\text{X}} \text{Product} \xrightarrow{\text{Y}} (\text{CH}_3)_2\text{CHBr}$
- a) X = dilute NaOH aq.; 20°C  
 Y = HBr/acetic acid; 20°C
- b) X = conc., alc. NaOH; 80°C  
 Y = HBr/acetic acid; 20°C
- c) X = dilute aqueous NaOH; 20°C  
 Y =  $\text{Br}_2/\text{CHCl}_3$ ; 0°C
- d) X = conc., alc. NaOH; 80°C

$Y = \text{Br}_2/\text{CHCl}_3; 0^\circ\text{C}$

17. In the dichlorination reaction of propane, mixture of products are obtained. How many isomers the mixture contains?

- a) 2                      b) 3                      c) 4                      d) 5

18. The number of stereoisomers of compound  $\text{CH}_3\text{—CH} = \text{CH—CHBr—CH}_3$  would be:

- a) 3                      b) 6                      c) 2                      d) 4

19. The industrial preparation of chloroform employs acetone and:

- a) Sodium chloride    b) Chlorine gas        c) Calcium hypochlorite    d) Phosgene

20.  $\text{RX} + \text{A} \rightarrow \text{RNC}$

A is

- a) AgCN                      b) KCN                      c) NaCN                      d) HCN

PE