



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

## WORKSHEET-07(CLASS-12)

### TOPIC- ALKYL AND ARYL HALIDE

### SUBTOPIC-GRIGNARD REAGENT AND ITS CHEMICAL REACTIONS

SUBJECT - CHEMISTRY

DURATION - 30 mins

F.M. - 15

DATE -09.05.20



- 1.1 Which among the following is not an organometallic compound?  
a)  $\text{CH}_3\text{ONa}$  b)  $\text{CH}_3\text{MgBr}$  c)  $\text{CH}_3\text{Li}$  d)  $(\text{CH}_3)_2\text{Zn}$
- 1.2 The co-ordination number of Magnesium is-  
a) 6 b) 2 c) 3 d) 4
- 1.3 Which halogen is the best for using in the Grignard reagent?  
a) Cl b) Br c) F d) I
- 1.4 Grignard reagent when exposed to moisture-  
a) Gets oxidized b) gets hydrolyzed c) gets decomposed to give hydrocarbon d) remains unaffected
- 1.5 Grignard reagent forms alkane with which of the following compound?  
a) Formaldehyde b) Carbon dioxide c) Acetylene d) Acetone
- 1.6 Which of the following solvent is used during the reaction of Grignard reagent?  
a) Moist ether b) Water c) Dry ether d) Benzene
- 1.7 Grignard reagent can act as-  
a) Reductant b) Nucleophile c) Base d) Both b and c
- 1.8 Grignard reagent doesn't react with aliphatic ether because it doesn't have-  
a) Acidic H atoms b) electrophilic center c) Nucleophilic center d) Both a and b
- 1.9 Grignard reagent on treatment with  $\text{D}_2\text{O}$  forms-  
a)  $\text{RD}$  b)  $\text{RH}$  c)  $\text{H}_2\text{O}$  d) Both b and c
- 1.10 Alkane can be prepared on reaction of Grignard reagent with-  
a)  $\text{HCN}$  b)  $\text{NH}_3$  c)  $\text{H}_2\text{O}$  d) All of these
- 1.11  $^{14}\text{CH}_3\text{MgBr}$  on treatment with  $^{14}\text{CO}_2$  generates-  
a)  $\text{CH}_3\text{COOH}$  b)  $\text{CH}_3^{14}\text{COOH}$  c)  $^{14}\text{CH}_3^{14}\text{COOH}$  d)  $^{14}\text{CH}_3\text{COOH}$
- 1.12 Which of the following name is associated with the chemical reactions of Grignard reagent?  
a) Zerewitinoff b) Markownikoff c) Riemeier-Tiemann d) wurtz
- 1.13 The role of ether during the reaction of Grignard reagent-  
a) It satisfies the coordination number of Mg b) it reacts with the substrate c) It enhances the electrophilic character of the substrate d) None of these
- 1.14 Grignard reagent is suitable for the preparation of which type of alkane?  
a) Symmetrical b) unsymmetrical c) Both a and b d) None of these
- 1.15  $\text{CH}_3\text{CH}_2\text{Br}$  on treatment with  $\text{CH}_3\text{SH}$  forms-  
a)  $\text{CH}_3\text{CH}_2\text{CH}_3$  b)  $\text{CH}_3\text{CH}_3$  c)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$  d)  $\text{CH}_4$

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