



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

## WORKSHEET-06(SOLUTION)



### CLASS-12

#### TOPIC- ALKYL AND ARYL HALIDE

#### SUBTOPIC-CHEMICAL REACTIONS OF ALKYL AND ARYL HALIDE

SUBJECT – CHEMISTRY

DURATION – 30 mins

F.M. - 15

DATE -08.05.20

1.1 Ethyl iodide on treatment with metallic sodium in presence of dry ether forms-

- a) Butane b) Ethane c) Hexane d) Propane

**Ans. a) Butane**

1.2 Which among the following is a yellow solid?

- a)  $\text{CH}_3\text{Cl}$  b)  $\text{CH}_3\text{I}$  c)  $\text{CH}_3\text{Br}$  d)  $\text{CH}_3\text{F}$

**Ans. b)  $\text{CH}_3\text{I}$**

1.3 The reactivity order for  $\text{S}_{\text{N}}1$  mechanism follows-

- a) Benzylic > Allylic >  $3^\circ > 2^\circ > 1^\circ$  b) Allylic > Benzylic >  $3^\circ > 2^\circ > 1^\circ$  c) Benzylic >  $3^\circ > 2^\circ > 1^\circ$  > Allylic  
d) Benzylic < Allylic <  $3^\circ < 2^\circ < 1^\circ$

**Ans. a) Benzylic > Allylic >  $3^\circ > 2^\circ > 1^\circ$**

1.4 Grignard reagent when exposed to ammonia-

- a) Gets oxidized b) gets hydrolyzed c) gets decomposed to give hydrocarbon d) forms alkane

**Ans. d) forms alkane**

1.5 Which of the following compound gives positive iodoform test-

- a) Formaldehyde b) Pentanone c) Methanol d) Chloral

**Ans. d) Chloral**

1.6 Which of the following alkyl halides mentioned below undergoes dehydrohalogenation in the presence of a strong base to give 2-pentene as the only alkene product?

- a) 1-chloropentane b) 2-chloropentane c) 3-chloropentane d) 1-chloro-2-methylbutane

**Ans. c) 3-chloropentane**

1.7 Which of the following chemical reaction is used to identify primary amine?

- a) Reimer Tiemann b) Wurtz c) Iodoform d) Carbyl amine

**Ans. d) Carbyl amine**

1.8 To prepare an unsymmetrical alkane which method is the best to operate?

- a) Decarboxylation b) Corey House c) Wurtz reaction d) Isomerisation

**Ans. b) Corey House**

1.9 Which of the following is a nucleophile?

- a)  $\text{CN}^-$  b)  $\text{BF}_3$  c)  $\text{H}^+$  d)  $\text{CCl}_4$

**Ans. a)  $\text{CN}^-$**

1.10 Magnesium reacts with alkyl halide to form-

- a) Grignard reagent b) Gilmann reagent c) Lucas reagent d) None of these

**Ans. a) Grignard reagent**

1.11  $^{14}\text{CH}_3\text{MgBr}$  on treatment with  $\text{CO}_2$  generates-

- a)  $\text{CH}_3\text{COOH}$  b)  $\text{CH}_3^{14}\text{COOH}$  c)  $^{14}\text{CH}_3^{14}\text{COOH}$  d)  $^{14}\text{CH}_3\text{COOH}$

**Ans. d)  $^{14}\text{CH}_3\text{COOH}$**

1.12  $\text{CH}_3\text{CH}_2\text{Cl}$  reacts with  $\text{KNO}_2$  in presence of alcoholic medium to form-

a) Nitro ethane b) Ethyl nitrite c) Both a and b d) None of these

**Ans. b) Ethyl nitrite**

1.13  $\text{C}_2\text{H}_5\text{MgBr}$  reacts with  $\text{CH}_3\text{COC}_2\text{H}_5$ , followed by hydrolysis to form-

a)  $1^\circ$  alcohol b)  $2^\circ$  alcohol c)  $3^\circ$  alcohol d) Carboxylic acid

**Ans. c)  $3^\circ$  alcohol**

1.14 Which among the following can't be considered as an organometallic compound-

a)  $\text{CH}_3\text{Li}$  b)  $\text{CH}_3\text{MgBr}$  c)  $\text{CH}_3\text{COONa}$  d)  $(\text{CH}_3)_2\text{CuLi}$

**Ans. c)  $\text{CH}_3\text{COONa}$**

1.15  $(\text{C}_2\text{H}_5)_2\text{CuLi}$  on reaction with  $\text{C}_2\text{H}_5\text{Br}$  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)  $\text{CH}_4$

**Ans. c)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$**

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