

Date Planned : / /	Daily Tutorial Sheet-9	Expected Duration : 30 Min
Actual Date of Attempt ://	Level-2	Exact Duration :

106. Ph

The product (A) will be:

(D) None of these

Sum of x and y is:

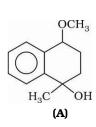
(A) 2

(B) 3

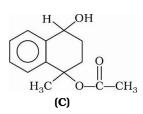
(C)

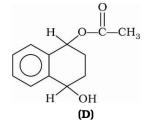
(D) 5

108. OH $CH_3CO_2H \text{ (1 mole)} \longrightarrow (A). \text{ Product (A) is :}$ $H_3C \longrightarrow OH$



O—C—CH





109. $\operatorname{Me_2CHOCMe_3} \xrightarrow{\operatorname{HI}(\operatorname{conc.})} X + Y$

Predict the nature of product and the type of reaction involved in their formation :

- (A) Me_2CH-I and Me_3COH , formed by S_N1 reaction
- (B) Me_2CHOH and Me_3C-I , formed by S_N1 reaction
- (C) $$\operatorname{Me}_2{\rm CH-I}$ and $\operatorname{Me}_3{\rm COH}$, formed by $S_N 2$ reaction$
- (D) $$\operatorname{\text{Me}_{2}CHOH}$ and $\operatorname{\text{Me}_{3}C}-I$, formed by $S_{N}2$ reaction$



110. The final product (IV) in the sequence of reactions is:

$$\begin{array}{c} \text{CH}_{3}\text{CHOH} \xrightarrow{\text{PBr}_{3}} \text{I} \xrightarrow{\text{Mg}} \text{II} \xrightarrow{\text{CH}_{2}\text{-CH}_{2}} \text{III} \xrightarrow{\text{H}_{2}\text{O}} \text{IV} \\ \text{CH}_{3} \end{array}$$

- (A) $CH_3 CHOCH_2CH_2OH$ CH_3
- (B) CH₃ CHCHCH₃
- (C) $\begin{array}{c} \mathrm{CH_3} \mathrm{CH} \mathrm{CH_2CH_2OH} \\ | \\ \mathrm{CH_3} \end{array}$
- (**D**) CH₃ CHOCH₂CH₃

111. $C_2H_5MgBr + H_2C - CHCH_3 \xrightarrow{1. Et_2O} Product.$ The product is :

(A) $\begin{array}{ccc} \operatorname{CH}_2 - \operatorname{CH} - \operatorname{C}_2 \operatorname{H}_5 \\ | & | \\ \operatorname{OH} & \operatorname{CH}_3 \end{array}$

- (B) $\begin{array}{c} \text{C}_2\text{H}_5 \text{CH} \text{CH}_2\text{CH}_3 \\ \text{OH} \end{array}$
- (C) $C_2H_5 CH_2 CH CH_3$ OH
- **(D)** $C_2H_5 CH = CH CH_3$

*112. Which of the following is(are) true for the above reaction?

- (A) The products are $PhOH + PhCH_2OH$
- The products are PhOH + PhCH₂I
- (C) The reaction path is via $S_N 2$
- **(D)** The reaction path is via $S_N 1$

*113. Cyclopentylether can be obtained by:

(A) ONa +
$$CH_3CH_2Br$$

(B) $-Br + CH_3CH_2ONa$

(C)
$$\bigcirc$$
 OH + CH₂N₂/HBF₄

 $OH + CH_3OH - \frac{H_2SO_4(conc.)}{140^{\circ}C}$

*114. Diethylether reacts with PCl_5 to form :

(A) Ethylchloride

(B) Phosphorousoxytrichloride

(C) 1, 2-Dichloroethane

(D) Ethene

(B)

(D)

115. Consider the following reaction: $RONa + R'X \longrightarrow R - O - R' + NaX$

Which of the following statement is/are correct?

- **(A)** The reaction is called Williamson's synthesis.
- **(B)** It is a nucleophillic substitution reaction
- **(C)** The reaction is applicable to all types of alkyl halides
- (D) If R'X is a primary alkyl halide, the reaction proceeds through $S_N 2$ mechanism