ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-18(CLASS-12)

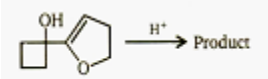
TOPIC- ALCOHOL, PHENOL AND ETHER

SUBTOPIC-CHEMICAL REACTIONS OF ALCOHOL

SUBJECT – CHEMISTRY **F.M. - 15**

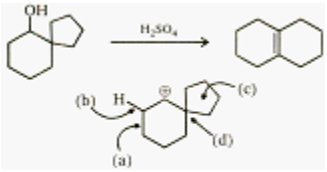
DURATION – 30 mins **DATE -13.06.20**

1.1 **Identify the major product,**



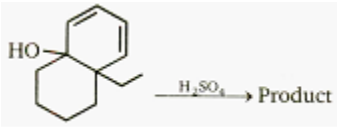
(a) (b) (c) (d)

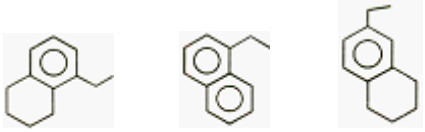
1.2 **The following transformation involves a carbocation rearrangement. The carbocation is generated by the protonation of the hydroxyl group, followed by the loss of water. Which bond has to migrate in the carbocation to yield the product in the product indicated (after the deprotonation)?**



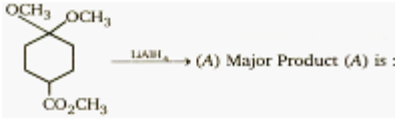
(a) a(b) b(c) c (d)

1.3 **Identify the major product.**

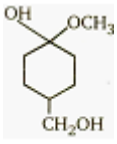




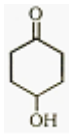
(a) (b) (c) (d)



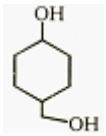
1.4



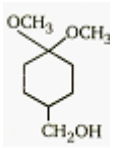
(a)



(b)

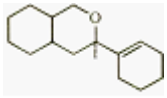


(c)

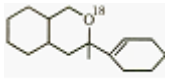


(d)

1.5 **Major product obtained in the reaction is**



(a)



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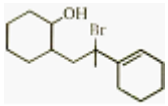

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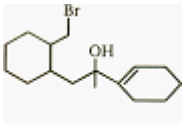
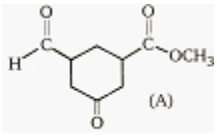
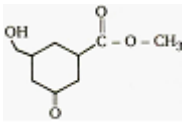


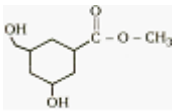
(d)

1.6 **Predict the product when given compound reacts with $LiAlH_4$.**

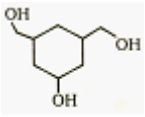




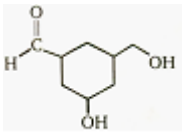
(a)



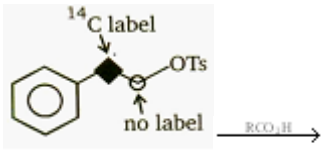
(b)



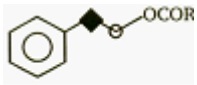
(c)



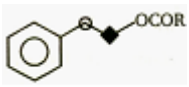
(d)



1.7 **Product of the above reaction is :**

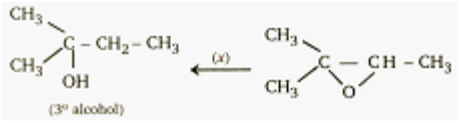


(a)

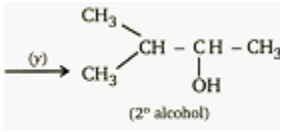


(b)

(c) Both (a) & (b)(d) None of these



1.8

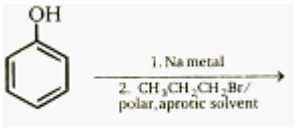


Find missing reagents.

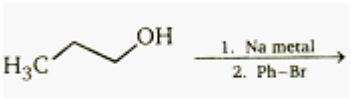
(a) x = $LiAlH_4$, y = $NaBH_4$(b) x = $LiAlH_4/AlCl_3$, y = $LilAlH_4$

(c) x = $LiAlH_4$, y = $LiAlH_4/AlCl_3$(d) x = H_2/Ni, y = H_2/Pt

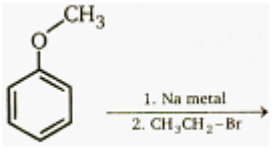
1.9 **Choose the best synthesis of phenyl n-propyl ether.**



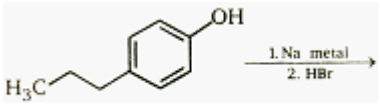
(a)



(b)

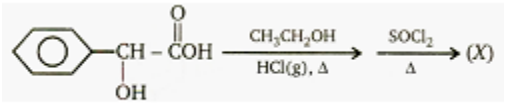


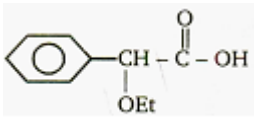
(c)



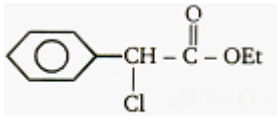
(d)

1.10**Assign the structure of major product (X) of the reaction given below.**

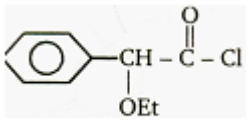




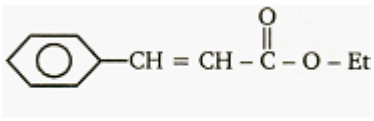
(a)



(b)



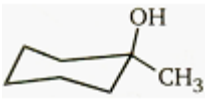
(c)



(d)

1.11**Which of the following react with HBr at faster rate?**

(a)



(b)

(c)

(d)

1.12**Phenol can be distinguished from ethanol by the reactions with-**

a) Br_2/water b) Nac) Neutral $FeCl_3$ d) All the above

1.13 **Which of the following reagents can be used to oxidise primary alcohols to aldehydes?**

a) CrO_3 in anhydrous medium **b)** $KMnO_4$ in acidic medium

c) Pyridinium chlorochromate **d)** Heat in the presence of Cu at 573K

1.14 **Which of the following is most acidic?**

a) Benzyl alcohol b) Cyclohexanol c) Phenold) m-Chlorophenol

1.15**Ethyl chloride can be converted into ethanol acid by-**

a) Hydrogenation**b)** Hydration **c)** Substitution**d)** Fermentation

PREPARED BY: MR. ARNAB PAUL CHOWDHURY