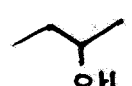





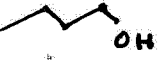






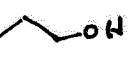
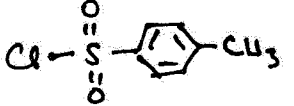

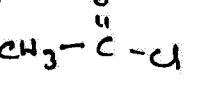





CHAPTER 11 - REACTIONS OF ALCOHOLS

1.   $\xrightarrow[\text{H}_2\text{SO}_4]{\text{Na}_2\text{Cr}_2\text{O}_7}$
2.   $\xrightarrow[\text{H}_2\text{SO}_4]{\text{Na}_2\text{Cr}_2\text{O}_7}$
3.   $\xrightarrow{\text{PCC}}$
4.   $\xrightarrow[2) \text{LiAlH}_4]{1) \text{TsCl/pyridine}}$
5.   $\xrightarrow{\text{SOCl}_2/\text{pyridine}}$
6.   $\xrightarrow{\text{HCl}}$
7.   $\xrightarrow{\text{HBr}}$
8.   $\xrightarrow{\text{PBr}_3}$
9.   $\xrightarrow{\text{HI}}$
10.   $\xrightarrow{\text{P/I}_2}$
11.   $\xrightleftharpoons[\text{(or H}_3\text{PO}_4)]{\text{H}_2\text{SO}_4}$
12.  +   $\xrightleftharpoons{\text{H}^+}$
13.  +   $\xrightarrow{\text{Pyr}}$
14.  +   $\longrightarrow$
15.  +  $\text{Na} \longrightarrow$
16.  +  $\text{NaH} \longrightarrow$
17.  +  $\xrightarrow[2) \text{CH}_3\text{Br}]{1) \text{Na}}$