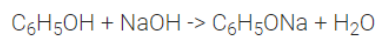


Question 11. Which of the following compounds will react with sodium hydroxide solution in water?

(a)  $C_6H_5OH$  (b)  $C_6H_5CH_2OH$  (c)  $(CH_3)_3COH$  (d)  $C_2H_5OH$

**Solution:** (a) Phenol being more acidic reacts with sodium hydroxide solution in water to give sodium phenoxide which is resonance stabilized.

Alcohols are very weak acids.



**Note: Phenol reacts with NaOH because they are sufficiently acidic but alcohols are not sufficiently acidic so that they can react with NaOH. This is a very important property to remember.**