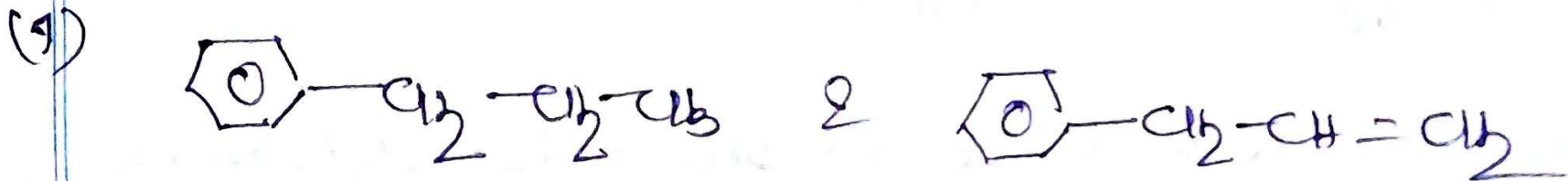


Q-13 The IR spectrum of ethyl acetate ~~acetate~~ shows absorptions ~~at~~  $\bar{\nu}$  1748  $\text{cm}^{-1}$  and 1720  $\text{cm}^{-1}$ . Explain.

Q-14 How can you differentiate between the following compounds? (By IR Spectroscopy)



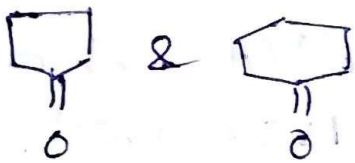
(v)



(vi)



(vii)



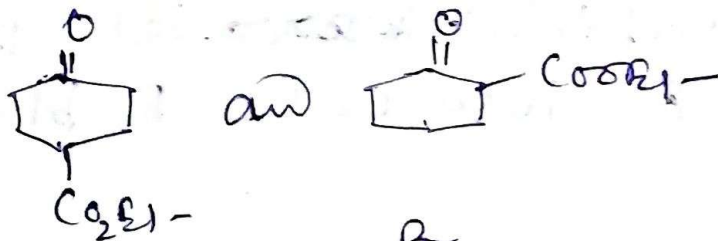
(ix)



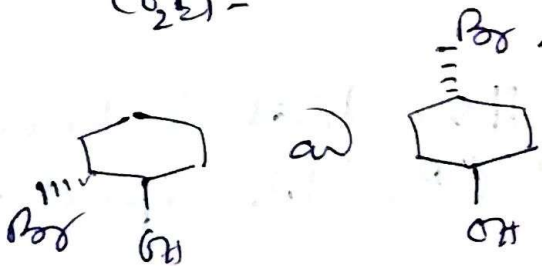
(xiii)



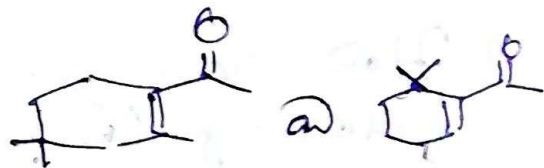
(ix)



(x)



(xi)



(xiii)

Acetic anhydride and Succinic anhydride

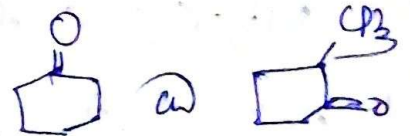
(xiii)



(xiv)



(xv)



15.

The compound (A)  is neutral

and absorbs at 1670  $\text{cm}^{-1}$ , but compound (B)

 dissolves in 5% HCl and absorbs

at 1720  $\text{cm}^{-1}$  — Explain reasonably.

16

The IR spectrum of ethylacetacetate shows absorptions at 3050  $\text{cm}^{-1}$ , 1748  $\text{cm}^{-1}$

1724  $\text{cm}^{-1}$  and 1650  $\text{cm}^{-1}$  — Explain

17.