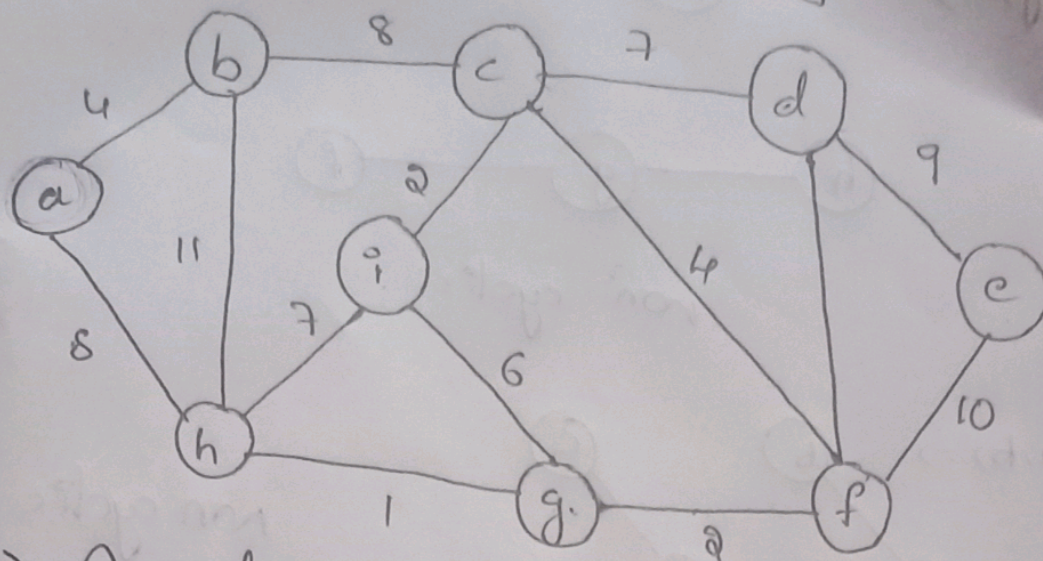


# Kruskal's Algorithm



$\Rightarrow$  Ascending order  $\rightarrow$  weights of each edge

$(g, h) \rightarrow 1$        $(i, g) \rightarrow 6$

$(c, i) \rightarrow 2$        $(c, d) \rightarrow 7$

$(f, g) \rightarrow 2$        $(i, h) \rightarrow 7$

$(a, b) \rightarrow 4$        $(b, c) \rightarrow 8$

$(c, f) \rightarrow 4$        $(a, h) \rightarrow 8$

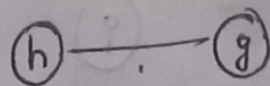
$(d, e) \rightarrow 9$

$(e, f) \rightarrow 10$

$(b, h) \rightarrow 11$

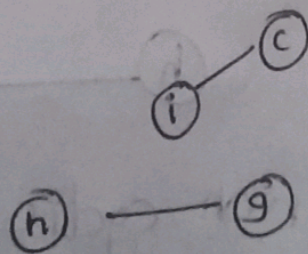
Check for non-cyclic path, if cyclic avoid that.

$(g, h) \Rightarrow$



non cyclic

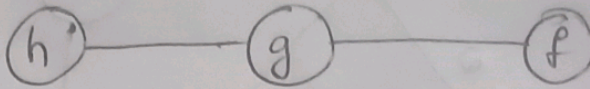
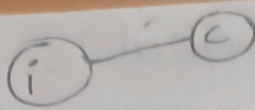
$(c, i) \Rightarrow$



non cyclic

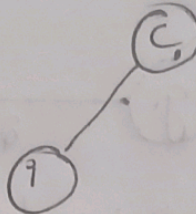
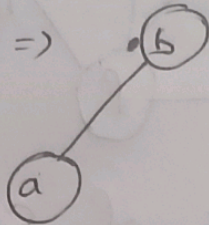


$(f, g) \Rightarrow$

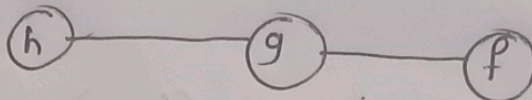


non cyclic

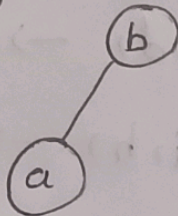
$(a, b) \Rightarrow$



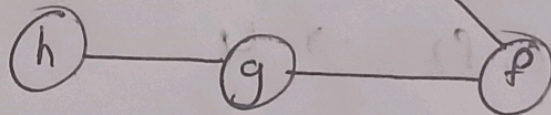
non cyclic



$(c, f) \Rightarrow$

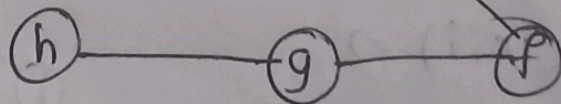
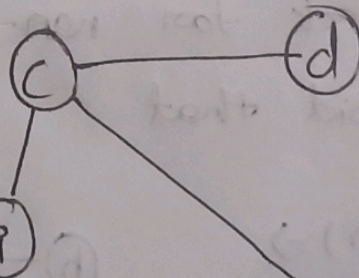


non cyclic



$(i, g) \Rightarrow$  cycle  $\Rightarrow$  avoid

$(c, d) \Rightarrow$

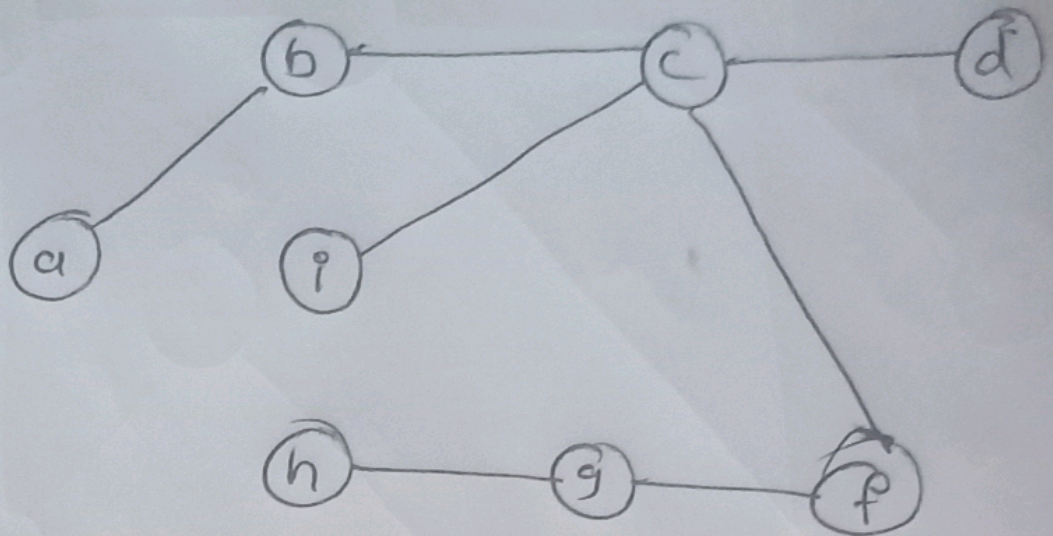


non cyclic

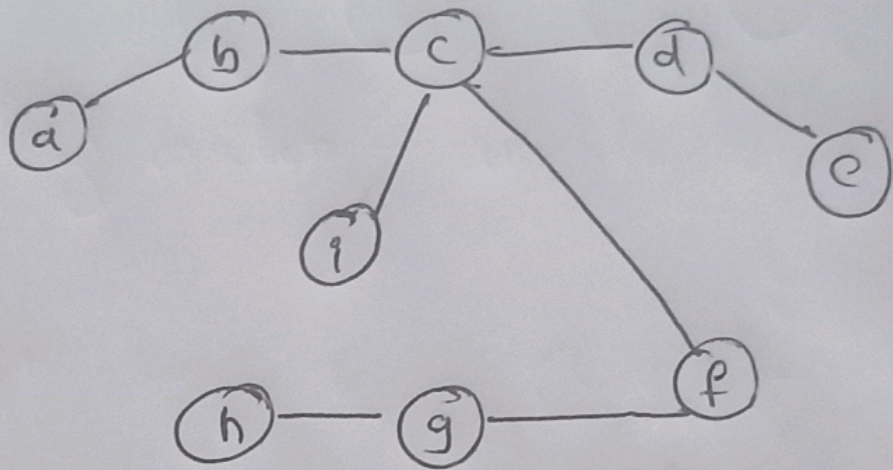


$(i, h) = )$  cycle  $\Rightarrow$  avoid

$(b, c) \Rightarrow$



$(d, e) = )$



$(e, f) = )$  cyclic  $\Rightarrow$  avoid

$(b, h) = )$  cyclic  $\Rightarrow$  avoid.