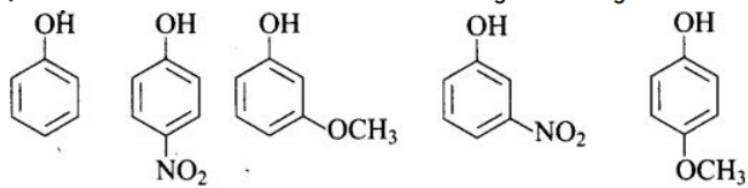


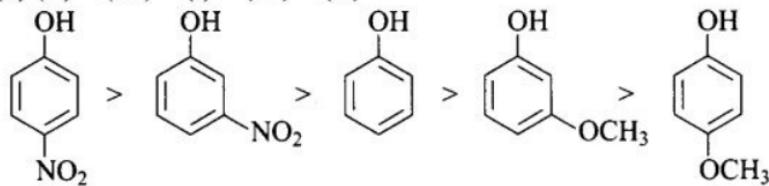
Question 14. Mark the correct order of decreasing acid strength of the following



- (a) (V) > (IV) > (II) > (I) > (III) (b) (II) > (IV) > (I) > (III) > (V)
 (c) (IV) > (V) > (III) > (II) > (I) (d) (V) > (IV) > (III) > (II) > (I)

Solution:

(b) (II) > (IV) > (I) > (III) > (V)



-NO₂ is an electron withdrawing group which increases the acidity of phenol and the effect is more pronounced at ortho and para positions. Similarly methoxy group is an electron releasing group which decreases the acidity of phenol and the effect is more pronounced at ortho and para positions.