

Phenol on reaction with  $\text{Br}_2$  in non polar aprotic solvent furnishes major product:-

- (a) 2,4,6 tribromophenol
- (c) metabromophenol

- (b) orthobromophenol
- ✓ (d) para bromophenol.

Sol<sup>n</sup>. In polar aprotic solvent, mono substitution occurs at ortho and para positions as  $-\text{OH}$  shows +M effect at o and p positions. out of them, p-bromophenol is major product because the  $e^-$  density at p is relatively higher due to the  $-I$  effect of  $-\text{OH}$  at ortho position.