Exemplar Problems

Q10. Amphoteric hydroxides react with both alkalies and acids. 'Which of the following group 2 metal hydroxides is soluble in sodium hydroxide?

- (a) Be(OH)₂
- (b) Mg(OH)₂
- (c) Ca(OH)₂
- (d) Ba(OH)₂

Sol: (a) Be(OH)₂ reacts with NaOH to give beryllate ion, becoming soluble in it. Be(OH)₂ + $20H^- \rightarrow [Be(OH)_4]^2$