

PCMB CLASSES GURGOAN
IX- XII
CBSE/ISC/ICSE/NSO/NTSE/JEE MAINS/NEET
8393879732

TOPIC: ANALYTICAL CHEMISTRY
CLASS X [ICSE]

1. The metal hydroxide which reacts with both acids and alkalis to form salt and water is:
 - (a) Calcium hydroxide
 - (b) Magnesium hydroxide
 - (c) Aluminium hydroxide
 - (d) Ferric hydroxide
2. The hydroxide which is soluble in excess of NaOH is :
 - (a) $Zn(OH)_2$
 - (b) $Fe(OH)_2$
 - (c) $Fe(OH)_3$
 - (d) $Al(OH)_3$
3. What is the colour of ppt. formed when sodium hydroxide solution is added to calcium salt?
 - (a) Green
 - (b) White
 - (c) Brown
 - (d) Red
4. Rita was given an unknown salt for identification. She prepared a solution of the salt and divided it into two parts. [2]
 - To the first part of the salt solution, she added a few drops of ammonium hydroxide and obtained a reddish-brown precipitate.
 - To the second part of the salt solution, she added a few drops of silver nitrate solution and obtained a white precipitate.

Name: (a) the cation present and (b) the anion present in the salt given for identification.
5. State two relevant observations for each of the following:
 - (a) Ammonium hydroxide solution is added to copper (II) Nitrate solution in small quantities and then in excess.
 - (b) Ammonium hydroxide solution is added to zinc nitrate solution in minimum quantities and then in excess.
 - (c) Lead nitrate crystals are heated in a hard glass test tube.
6. What do you observe when caustic soda solution is added to the following solution, first a little and then in excess:

(i) $FeCl_3$	(ii) $ZnSO_4$	(iii) $Pb(NO_3)_2$	(iv) $CuSO_4$
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Write balanced equations for these reactions.
7. Using sodium hydroxide solution, how would you distinguish:
 - a. Ammonium sulphate from sodium sulphate
 - b. Zinc nitrate solution from calcium nitrate solution
 - c. Iron (II) chloride from iron (III) chloride
 - d. Calcium nitrate solution from calcium chloride solution

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8. From the list of substances given – Ammonium sulphate, Lead carbonate, chlorine, Copper nitrate, Ferrous sulphate – State a solution of the compound which gives a dirty green precipitate with sodium hydroxide

