

Q 14 Identify the cations in each of the following case: LB

- i) NaOH solution when added to the solution (A) gives a reddish brown ppt.
- ii) NaOH solution when added to solution (B) gives chalky white ppt. which is soluble in excess.
- iii) NaOH solution when added to solution (C) gives white ppt. which is insoluble in excess.
- iv) NH_4OH solution when added to the solution (D) gives white ppt. which does not dissolve in excess.
- v) NH_4OH solution when added to the solution (E) gives pale blue ppt. which is soluble in excess and forms deep blue solution.
- vi) White ppt. insoluble in NH_4OH but soluble in NaOH.

Q27 i) How will you distinguish NH_4OH solution from NaOH solution? L^3

ii) Why the alkali is added drop by drop to the salt solution? L^1

iii) What do you observe when:

a) ammonium salt is heated with caustic soda solution? L^2

b) Zinc salt heated with ammonium hydroxide solution? L^2

Write the word equation.

iv) What do you understand by the following? L^4

a) Analysis b) Qualitative analysis

c) Reagent d) Precipitation reaction.

v) What is observed when hot concentrated caustic soda solution is added to

a) Zinc b) Aluminium.

Write balanced eq. L^2

Q37 i) Dilute hydrochloric acid can not be concentrated by boiling beyond 22.2%. Why? L2

ii) What is azeotrope? Give one example. L2

iii) Write balanced chemical equation: L2

a) Sodium thiosulphate is reacted with dilute hydrochloric acid.

b) Ammonia react with Copper(II) oxide

c) Calcium bisulphite react with nitric acid (dil.)

d) Sulphur trioxide reacts with oil of vitriol to form oleum

Q47 Explain L4

a) Sulphuric acid acts as dehydrating agent L2

b) Nitric acid is kept in a reagent bottle for a long time L2
OR

When the stopper of a bottle full of hydrogen chloride gas is opened there are fumes in the air.

- Q 57
- a) Name: L³
- i) a non-metal which is ductile
 - ii) a non-malleable metal
 - iii) a metal with dull appearance
- b) Why do gold ornaments look new even after several years of use? L¹
- c) What is corrosion? What is sacrificial protection? L²
- d) Differentiate between Roasting and Calcination L²
- e) Name the alloy of: L³
- i) Aluminium used in aircraft
 - ii) Iron used in scientific instruments
 - iii) Iron used in cutting tools for high speed lathes