

Salt Analysis Assignment Question Paper

Section A: Multiple Choice Questions (20 marks)

Choose the correct answer and write the corresponding alphabet in the answer sheet.

1. Which of the following reagents is used to detect the presence of chloride ions?
a) Silver nitrate solution
b) Sodium hydroxide solution
c) Ammonium hydroxide solution
d) Potassium dichromate solution
2. The cation in ammonium chloride is:
a) Ammonium b) Chloride c) Nitrate d) Sulphate
3. Which of the following is a qualitative test for the presence of carbonate ions?
a) BaCl_2 solution test b) NaOH solution test c) Ammonia solution test d) Sodium hydrogen carbonate test
4. Which of the following is used to identify the presence of ferrous ions?
a) Potassium permanganate solution b) Sodium thiosulphate solution c) Sodium hydroxide solution d) Ammonium thiocyanate solution
5. The anion in sodium sulphate is:
a) Sulphate b) Sodium c) Chloride d) Nitrate

Section B: Short Answer Questions (30 marks)

Answer any three questions out of the given four questions.

1. Explain the steps involved in the detection of sulphate ions.
2. Describe the tests used for the identification of sodium and potassium ions.
3. Explain the tests used to identify the presence of nitrate and nitrite ions.
4. How is the presence of iron(III) ions detected in a given salt sample?

Section C: Long Answer Questions (50 marks)

Answer any two questions out of the given three questions.

1. Describe the tests used for the identification of ammonium ions and carbonate ions.
2. Explain the tests used for the identification of chloride and bromide ions.
3. Describe the tests used for the identification of calcium and magnesium ions.

Note: You are required to carry out the salt analysis experiment in the laboratory and submit a report along with the assignment.