

Greenlawns School, Worli
Preliminary Examination: 2023-24
Chemistry Practicals

Std: X
Date: 19/12/23

Marks: 20
Time: 1 hr

You will not be allowed to write during the first 10 min. This time is to be spent in reading the question paper and planning your work. The time given at the head of the paper is the time you are given to write the paper.

Question 1

Analyse the given salt for both acidic and basic radicals by carrying out the following tests and give relevant equations wherever necessary at the end: [10]

EXPERIMENT	OBSERVATION	INFERENCE
1) <u>Dry Test:</u>		
a) Action of heat		
2) <u>Wet Test:</u>		
a) Detection of cation:		
To a small amount of O.S. add NH_4OH solution drop by drop and then in excess.		
b) Detection of anion:		
To the salt solution add conc. Sulphuric acid and copper turnings and heat.		
Brown Ring Test		

REACTIONS:

CONCLUSION:

Question 2

Salts A, B, C, D and E undergo reactions (a) to (e) respectively. Identify the anions present in these salts on the basis of these reactions. Tabulate your answers in the format given below:

[5]

Salt	Anion
A	
B	
C	
D	
E	

- When silver nitrate solution is added to a solution of **A**, a white precipitate, insoluble in dilute nitric acid is formed.
- Addition of dilute hydrochloric acid to **B** produces a gas which turns lead acetate paper silvery black.
- When a freshly prepared solution of ferrous sulphate is added to a solution of **C** and concentrated Sulphuric acid is gently poured from the side of the test tube, a brown ring is formed.
- When dilute Sulphuric acid is added to **D**, a gas is produced which turns acidified potassium dichromate solution from orange to clear green.
- Addition of dilute hydrochloric acid to **E** produces effervescence. The gas produced turns lime water milky but does not affect acidified potassium dichromate solution.

Question 3

Distinguish by a chemical test:

[2]

- NaOH and NH_4OH solution
- Dil. Sulphuric acid and dil. HCl using barium chloride

Question 4

State your observations for the following:

[3]

- Action of heat on zinc nitrate.
- Addition of dil. hydrochloric acid to silver nitrate solution followed by the addition of excess ammonium hydroxide.
- Addition of conc. hydrochloric acid to Manganese dioxide.
