

Note: Time allowed for Section - B and Section - C is 2 Hours and 45 minutes.

Marks: 32

Section - B

Answer any EIGHT parts. Each part carries FOUR marks.

- Q.1 "Like dissolve like", elaborate the statement.
- Q.2 Why gas is compressible but solid is not compressible? Give reason.
- Q.3 What is the atomic number of an element? How does it differ from the mass number?
- Q.4 State the physical properties of metals.
- Q.5 Calculate the molarity of a solution containing 7.50 mol of CaCO_3 in enough water to make 1.50 dm^3 of solution.
- Q.6 Write down four characteristics of ionic compound.
- Q.7 How many moles of H_2SO_4 are present in 0.500 dm^3 of 0.150 M of H_2SO_4 solution?
- Q.8 Why NaOH is strong but NH_4OH is weak electrolyte?
- Q.9 How does ionization energy values vary in groups?
- Q.10 Define electroplating and give any three processes of electroplating.
- Q.11 Why the s-block elements have two groups only?

Section - C

Marks: 21

Note : Attempt any THREE questions. All questions carry equal marks.

- Q.12 (a) What is the main distinction between ionic and covalent bonding? Explain with examples. (4)
- (b) Differentiate between atomic radii and covalent radii. (3)
- Q.13 (a) Draw the Lewis structure for the given: (i) CCl_4 (ii) BF_3 (4)
- (b) Write down factors which affect vapour pressure. (3)
- Q.14 (a) How would you experimentally verify Boyle's Law? (3)
- (b) Define solubility. What is the effect of temperature on solubility? (4)
- Q.15 (a) What happens during displacement reaction in halogens? (4)
- (b) Differentiate between unsaturated, saturated and super saturated solution. (3)