9171
CHEMISTRY — 9th

Time: 2 Hours 40 Minutes

SECTION-B

Marks: 32

1. Attempt any eight of the following. All carry equal marks.

   i. Calculate the molecular mass of sugar.

   ii. What do you mean by atomic number? Give example.

   iii. Give electronic configuration of ^{10}A, ^{12}B.

   iv. What are the isotopes of chlorine? Draw their structure.

   v. Explain duplet and octet rule with examples.

   vi. Write physical properties of solid.

   vii. Define solubility and molarity.

   viii. Find the oxidation number of sulphur in H_2SO_4 and nitrogen in HNO_3.

   ix. What are weak and strong electrolytes? Give two examples of each.

   x. Differentiate between metals and non-metals.

   xi. Write physical properties of sodium.

SECTION-C

Marks: 21

NOTE: Attempt any three of the following questions. All questions carry equal marks.

2. i. Give reasons that alloys are mixtures not compounds.
   ii. What did Rutherford deduced from his experiments? Give diagram.

3. i. What is electronegativity? Write its trend in periodic table.
   ii. If $3dm^3$ of air is heated from 300 K to 400 K at constant pressure then what is the volume of the gas at high temperature?

4. i. How diffusion differs from effusion.
   ii. Calculate the molarity of solution which has 0.530g of Na_2CO_3 in $250cm^3$ of solution.

5. i. Describe Daniel cell.
   ii. Write down chemical properties of halogens.