

Note: Time allowed for section B and C is 2 hours and 40 minutes.

SECTION "B"

Marks: 32

II. Attempt any EIGHT Parts out of the following. Each Part carries equal marks.

- i. Write the contribution of Jabber Ibn Haiyan in the field of chemistry.
- ii. How many moles are there in  $8.9 \times 10^{23}$  hydrogen atom.
- iii. Write down the properties of ionic compounds.
- iv. What are the defects in Rutherford's Atomic model?
- v. Differentiate between duplet and octet theory valance by giving examples of Hydrogen and oxygen.
- vi. Why an atom is considered as Neutral particle?
- vii. Why a gas is compressible but a solid is not compressible? Give reasons.
- viii. Why NaOH is strong but  $\text{NH}_4\text{OH}$  is weak electrolyte.
- ix. What is Electroplating?
- x. What factors affects the electronegativity?
- xi. Differentiate between condensation and evaporation?

SECTION "C"

Marks: 21

Note: Attempt any THREE questions of the following. Each question carries equal Marks.

- III. (a) State the postulate of Bohr's theory. 4  
(b) Draw the structure of carbon isotopes. 3
- IV. (a) Differentiate between the processes of oxidation and reduction. 4  
(b) Give the reaction of Magnesium Mg with the following. 3  
i)  $\text{H}_2$       ii)  $\text{HCl}$       iii)  $\text{O}_2$
- V. (a) Define solubility? Explain the effects of temperature and pressure on solubility. 4  
(b) What is the mass in grams of 6-moles of water. 3
- VI. (a) Compare and contrast a mixture and a compound Give an example of each of them. 4  
(b) Write down factors which affects vapour pressure. 3