

<b>Chemistry</b>	<b>Ninth Lahore Board 2019</b>	<b>Paper</b>
<b>Time: 1.45 hrs</b>	<b>Essay type (Group - I)</b>	<b>Marks : 48</b>

### PART-I

**2. Write short answers to any FIVE (5) questions: 10**

- i Define empirical formula with an example.
- ii Give symbols of arsenic and silver.
- iii Differentiate between cation and anion.
- iv What do you mean by plum pudding theory?
- v Define isotopes and give an example.
- vi Define Dobereiner's triads.
- vii What is meant by Shielding effect?
- viii Why are noble gases not reactive?

**3. Write short answers to any FIVE (5) questions: 10**

- i Define duplet rule and octet rule.
- ii Write any two properties of ionic compounds.
- iii What do you mean by malleability?
- iv Define standard atmospheric pressure. Also write its unit.
- v Convert  $-30^{\circ}\text{C}$  to K unit.
- vi Give two examples of suspension.
- vii Define aqueous solution. Also write one example.
- viii What do you mean by volume / volume % and give one example.

**4. Write short answers to any FIVE (5) questions: 10**

- i Why is it necessary for rusting?
- ii Which solution is used as an electrolyte in Nelson's cell?
- iii Define Redox reactions.
- iv What is salt bridge? What is its basic function?
- v What is meant by malleable and ductile metals?
- vi Write two uses of calcium.
- vii Why is  $\text{HF}$  a weak acid?
- viii Write down chemical reaction of sodium with  $\text{H}_2$  and  $\text{Cl}_2$ .

### PART - II

**Note: Attempt any TWO questions.**

**5.(a)** Write down five results of experiment of Rutherford's atomic model. 5

**(b)** Define element and explain the kinds of elements with examples. 4

**6.(a)** Define co-ordinate covalent bond and explain it with an example. 5

**(b)** Write down any four typical properties of gases. 4

**7.(a)** Explain the manufacture of sodium metal from fused  $\text{NaCl}$ . 5

**(b)** Write any four characteristics of Colloid. 4