Roll No(figures)_____ P-54 ESKP-09XVI01

(in words) _____

CHEMISTRY

9th (New Course)

Superintendent Signature

Time: 3 hours Marks: 65

Note: There are three sections in the paper i.e. A,B&C. Attempt Section-A and return it to the Superintendent within the given time. No mark will be awarded to cutting, erasing & overwriting. Mobile phones are strictly prohibited.

Time: 15 mints **SECTION-A** **Marks: 12**

QNo1: There are four possible answers (A,B,C,D) for each question. Select the correct one and write it in the answer box.

i. The gram molecular mass of HNO_3 is _____ B

a) 60 b) 63 c) 98 d) 100

ii. The homogeneous mixture out of the following is _____. b

a) Smoke b) Air c) Fog d) Smog

iii. Electron in its ground state does not _____. c

a) Spin b) Revolve c) Radiate energy d) Reside in orbit

iv. The fourth period has _____ elements. b

a) 8 b) 18 c) 32 d) 56

v. The compound which dissolve in non polar solvent is _____. d

a) CH_3OH b) HCl c) NaCl d) C_6H_6

vi. The metal which in liquid form is _____. a

a) Mercury b) Sodium c) Magnesium d) Cobalt

vii. If one litre of gas is heated from 100k to 200k at constant pressure than the volume of the gas at this temperature will be _____. c

a) 1 litre b) 1.5 litre c) 2 litre d) 2.5 litre

viii. Glass is a solid which is _____. b

a) Crystalline b) Amorphous c) Allotropic d) None of these

ix. If two moles of Na_2SO_4 are dissolved in $1dm^3$ of solution than the molarity of solution is _____.

a) 2 b) 3 c) 4 d) 7

x. A cation is _____. c

a) Neutral b) Negatively charged c) Positively charged d) Coloured

xi. In room temperature metals are in _____ state. c

a) Gas and liquid b) Gas and Solid c) Solid and liquid d) In all three states

xii. Oxides of metals are _____ in nature. d

a) Neutral b) Amphoteric c) Acidic d) Basic

ESKP-09XVI01

CHEMISTRY

9th (New Course)

Note: Time allowed for Section – B & C is 2:45 hours.

SECTION – B

Marks: 32

Q2. Answer any EIGHT parts of the following. Each part caries equal marks.

i. What do you know about the term Avogadro's Number? Give examples.

ii. What is the mass of 5 moles of ice?

iii. State the two shortcoming of Rutherford Atomic Model.

iv. Define electro-negativity and on which factor it depends?

v. A pleasant smell of rose is felt when a person passes by a rose garden. Give reason.

vi. Calculate the molarity of 5% NaOH by mass solution.

vii. What is the oxidation state of N in NO, NO_2 and HNO_3?

viii. Describe Electrolysis.

ix. Write general properties of alkali metals.

x. Define electroplating. Write its uses.

xi. What is aqua regia?

SECTION – C

Marks: 21

Note: Attempt any THREE of the following. All questions carry equal marks.

Q3. (a) Write a brief note on the free radical with examples.

(b) Elaborate energy level and energy sub-level in periodic table.

Q4. (a) Define ionization energy. Write its trend (variation) in periodic table.

(b) Write note on metallic bond.

Q5. (a) What is allotropy? Explain allotropic form of carbon.

(b) 100gm NaOH are dissolved in H_2O and the volume of solution is $1dm^3$. Determine its molarity.

Q6. (a) Describe Daniel Cell.

(b) State the chemical properties of Halogens.

✪ ✪ ✪