O.P.JINDAL SCHOOL,SAVITRINAGAR

PERIODIC TEST –I(Round-I) (2026-27)

CLASS-XI **MAX.MARKS-20**

SUBJECT-CHEMISTRY **MAX.TIME-1HOUR**

General Instruction:-

(i)All questions are compulsory .There are 12 questions in this question paper with internal choice.
(ii)**SECTION –A:**Question numbers 1 to 6 are MCQs , carrying 1 mark each.
(iii)**SECTION –B:**Question numbers 7 to10 are short answer questions carrying 2 marks each.
(iv)**SECTION –C:**Question numbers 11 and 12 are long questions carrying 3markseach.
(v)Use of calculator is not permitted. However, you may use log tables, if necessary.

Q-1 . Number of atoms of oxygen present in 10.6 g Na_2CO_3 will be :

(a)$6.02X10^{22}$ (b)$12.04X10^{22}$

(c)$1.806X10^{23}$ (d)$31.8X10^{28}$

Q-2. What is the molarity of the solution which contains 5.85 g of NaCl per 500 mL?

(a)0.4M (b)4M

(c)0.2M (d)2M

Q-3. An organic compound containing C , H and N gave the following analysis: C=40% , H =13.33% ,N=46.47%. Its empirical formula is :

(a)$C_2H_2N_2$ (b)CH_5N

(c) CH_4N (d) C_2H_7N

Q-4. The molarity of pure water is:

(a)18 (b)5.56

(c)55.6 (d)100

Q-5. 10 g of sucrose is dissolved in 190 g of water .Calculate the mass percentage of the solution?

(a) 20% (b)15 %

(c)10% (d)5%

Q-6. The number of moles of CO_2 which contain 8g oxygen is

(a) 0.50 mol (b)0.20 mol

(c)0.40 mol (d)0.25 mol

Q-7. Calculate the molality of the solution containing 20.7 g of potassium carbonate dissolved in 500 mL solution.(density of the solution = 1 g mL^{-1}) .

Q-8. What will be the molality of the solution made by dissolving 10 g of NaOH in 100 g of water ?

Q-9. Write the e.c.e . of the following:

(i) Cr (b)Cl

Q-10. Calculate the mass of sugar and water present in 15% by mass of 300 mL solution. (Assuming that the density of the solution 1g/mL)

Q-11. If the concentration of glucose ($C_6H_{12}O_6$) in blood is 0.6g/L. What will be the molarity of glucose in blood ?

Q-12. . 5.64 g of glucose (molar mass=180) are dissolved in 30 g of water. Calculate the mole fraction of glucose and water.

OR

An organic compound on analysis gave the following data : C = 80% and H= 20% .If the molecular mass is 30 ,then calculate its molecular formula.