

O.P.JINDAL SCHOOL,SAVITRINAGAR
PERIODIC TEST -1(Round-I)(2024-25)

CLASS-XI
SUBJECT-CHEMISTRY

MAX.MARKS-20
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 3marks each.
- (v) Use of calculator is not permitted. However, you may use log tables, if necessary.

SECTION-A

- Q-1** Number of atoms of oxygen present in 10.6 g of Na_2CO_3 will be:
(a) 6.02×10^{22} (b) 12.04×10^{22}
(c) 1.806×10^{23} (d) 31.80×10^{28}
- Q-2** The total number of ions present in 111g of CaCl_2 is
(a) one mole (b) two mole
(c) Three mole (d) four mole
- Q-3** Which of the following has maximum number of atoms?
(a) 18g of water (b) 16 g of O_2
(c) 4.4 g of CO_2 (d) 16 g of CH_4
- Q-4** The empirical formula of glucose is:
(a) CHO (b) CH_2O
(c) CH_3O (d) CH_4O
- Q-5** The number of valence electrons present in Cl^- is
(a) 2 (b) 4
(c) 7 (d) 8
- Q-6** The total number of electrons present in ammonium ion is
(a) 7 (b) 10
(c) 11 (d) 8
- Q-7** What is the concentration of sugar in molarity if its 20 g are dissolved in enough water to make volume up to 2L.
- Q-8** A solution is prepared by dissolving 4g of a substance A in 36 g of water. Calculate the mass Percentage of the solute.
- Q-9** Calculate the mass of sugar and mass of water required to make 150 g of 20% solution of sugar..
- Q-10** 2.82 g of glucose (molar mass=180) are dissolved in 30 g of water. Calculate the mole fraction of glucose and water.

Q-11. The density of 3M NaCl solution is 1.25 g mL^{-1} . Calculate the molality of the solution.

OR

A solution is 25% water, 25% ethanol and 50% acetic acid by mass. Calculate the mole fraction of each component.

Q-12. An organic compound on analysis gave the following data: C=57.82% ,H=3.6% and the rest is oxygen. Its vapour density is 83. Find its empirical and molecular formula.
