

Note: There are three sections in this paper i.e. Section A, B & C.

VERSION : B

Time Allowed: 20 Minutes

"Section-A"

Marks: 12

INSTRUCTIONS:

- Attempt this section on the MCOs Answer Sheet only.
- Use black ball point or marker for shading only one circle for correct option of a question.
- No mark will be awarded for cutting, erasing, over writing and multiple circles shading.

Q. 1. Choose the correct option i.e. A,B,C, or D.

1. Mass number is also called .....
  - (A) Atomic number
  - (B) Mole
  - (C) Nucleon number
  - (D) Avogadro's number
2. Electron in ground state does not .....
  - (A) Spin
  - (B) Revolve
  - (C) Radiate energy
  - (D) Reside in orbit
3. Hydrogen has ..... isotopes.
  - (A) 2
  - (B) 3
  - (C) 4
  - (D) 5
4. The ability of an atom to attract electron(s) or shared pair of electrons towards itself is called .....
  - (A) Electron affinity
  - (B) Electro negativity
  - (C) Shielding effect
  - (D) Electro positivity
5. According to Octet rule atom has the tendency to have ..... electrons in its outer most shell.
  - (A) 2
  - (B) 4
  - (C) 6
  - (D) 8
6. Calcium chloride ( $\text{CaCl}_2$ ) has ..... bond.
  - (A) Ionic
  - (B) Covalent
  - (C) Coordinate
  - (D) Metallic
7. The SI unit of pressure is .....
  - (A) Joules
  - (B) Pascal
  - (C) Newton
  - (D) Watt
8. One of the following is not amorphous solid.
  - (A) Wax
  - (B) Butter
  - (C) Diamond
  - (D) Plastics
9. Brass is an example of ..... solution.
  - (A) Solid in solid
  - (B) Solid in liquid
  - (C) Solid in gas
  - (D) Liquid in liquid
10. The oxidation number of all elements in free state is .....
  - (A) Zero
  - (B) Two
  - (C) Three
  - (D) Four
11. Bromine is non-metal in .....
  - (A) Solid state
  - (B) Liquid state
  - (C) Gaseous state
  - (D) Plasma state
12. Which one of the following is known as marsh gas?
  - (A)  $\text{CO}_2$
  - (B)  $\text{CH}_4$
  - (C)  $\text{H}_2$
  - (D)  $\text{Cl}_2$

**"Section-B"**

Marks: 32

Q. 2. Write short answers of any Eight (8) of the following parts. Each part carries equal marks.

- (i) Differentiate between molecular mass and formula mass with examples.
- (ii) Calculate the moles in 10 grams of  $\text{CO}_2$ .
- (iii) Write four uses of Isotopes.
- (iv) How will you differentiate between representative and transition elements?
- (v) Why an atom is considered as a neutral particle?
- (vi) Give any four physical properties of metals.
- (vii) Hydrogen bonding is intermolecular force. Discuss.
- (viii) What are amorphous solids? Give at least two examples.
- (ix) Discuss molarity and give its unit(s) as well.
- (x) Why  $\text{O}_2$  is necessary for rusting?
- (xi) Pure gold is not used for ornaments. Why?

**"Section-C"**

Marks: 21

Note:- Answer any Three (3) questions. Each question carries equal marks.

- Q. 3. (a) What do you understand by the term Mole and Avogadro's number? Support your answer with suitable examples.
- (b) Draw the structure of Hydrogen isotopes by showing the number of electrons, protons and neutrons.
- Q. 4. (a) Discuss Covalent bond along with its three types.
- (b) What is Electron Affinity? Give its trend in periodic table.
- Q. 5. (a) Explain any two crystalline allotropic forms of Carbon in detail.
- (b) Differentiate between aqueous solution, solute and solvent.
- Q. 6. (a) What are Oxidation and Reduction reactions? Write an equation to illustrate each.
- (b) Give the reaction of chlorine ( $\text{Cl}_2$ ) with the following.
- (i)  $\text{H}_2\text{S}$                       (ii)  $\text{Ca(OH)}_2$                       (iii)  $\text{Na}$