

NOTE: Attempt all questions of Section A by filling the corresponding bubble on the MCQ ANSWER SHEET and return it to the Superintendent within given time, even if you have not attempted any question.

SECTION-A

Time: 20 Minutes

Marks: 12

1. A pure substance that cannot be broken down into simplest substance by physical or chemical means is called .....  A) element, B) compound, C) heterogenous mixture, D) homogenous mixture
2. There are ..... isotopes of hydrogen. A) 2,  B) 3, C) 4, D) 5
3. K-shell can accommodate maximum number of ..... electrons.  A) 2, B) 3, C) 8, D) 18
4. Number of periods in periodic table are .....  A) seven, B) eight, C) ten, D) eighteen
5. An element has 8 electrons in its valence shell, it is ..... A) an alkali metal, B) a halogen,  C) an inert gas, D) a coinage metal
6. What geometrical shape does  $\text{NH}_3$  have? A) linear, B) triangular, C) tetrahedral,  D) pyramidal
7. Diamond is the allotropic form of ..... A) oxygen,  B) carbon, C) hydrogen, D) chlorine
8. The increase of temperature of the gases decreases ..... A) pressure, B) volume,  C) force of attraction, D) kinetic energy
9. Water droplets in air is an example of solution of ..... A) gas in gas, B) gas in liquid,  C) liquid in gas, D) liquid in liquid
10. Which one of the following is a strong electrolyte? A)  $\text{H}_2\text{CO}_3$ , B)  $\text{NH}_4\text{OH}$ ,  C)  $\text{HCl}$ , D)  $\text{CH}_3\text{COOH}$
11. Ionic compounds conduct electricity when they are in the ..... state. A) solid, B) crystalline solid, C) anhydrous,  D) molten
12. At room temperature, metals exist as ..... A) gas and liquid, B) gas and solid,  C) solid and liquid, D) all of these