ICSE Board
Class VIII Chemistry
Sample Paper – 2

Time: 2 hrs **Total Marks: 75**

General Instructions:

1. ***All*** *questions are* ***compulsory****.*
2. *Questions 1 to 15 carry one mark each.*
3. *Questions in 2A and 2B carry one mark each.*
4. *Questions 3A and 3B carry five marks each.*
5. *Questions 4A and 4B carry 5 marks each.*
6. *Questions in 5A and 5B carry one mark each.*
7. *Questions in 6A and 6B carry one mark each.*
8. *Questions 7A and 7B carry five marks each.*

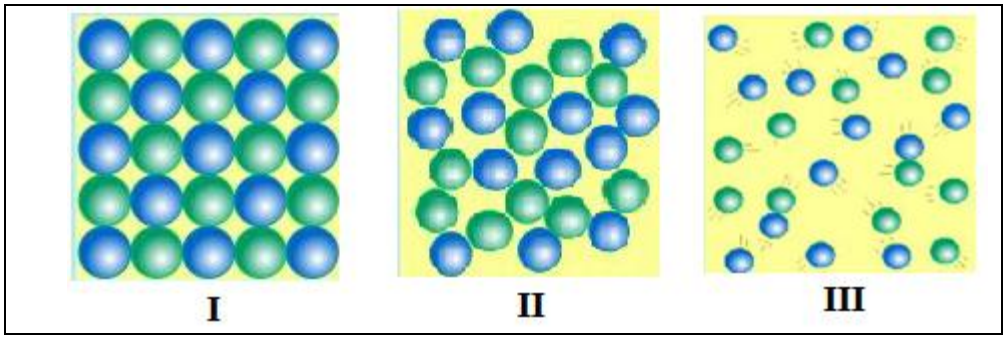
Question 1

Choose the correct answer out of the four available choices given under each question. [15]

1. The valency of carbon is 4 and that of oxygen is 2. What is the molecular formula of carbon dioxide?

(a) C_2O
(b) C_2O_2
(c) CO
(d) CO_2

2. Which of the following pictures represents the arrangement of particles in liquids?



(a) Picture II
(b) Picture I and II
(c) Picture I
(d) Picture II and III

3. The maximum number of electrons which can be accommodated in an orbit is given by the formula _____, where n is the number of orbit.
(a) 2(n + 2)
(b) 2n + 2
(c) $2n^2$
(d) $2/n^2$

4. Which of the following is incorrect about a heterogeneous mixture?
(a) Constituents can be distinctly seen
(b) Constituents are uniformly mixed
(c) Different composition throughout its mass
(d) Different composition in different parts of its mass

5. If atomic number of an atom is 17 and mass number is 35 then number of neutrons will be
(a) 35
(b) 17
(c) 18
(d) 52

6. The phenomenon of existence of a substance in various physical forms but the same chemical form is known as _____.
(a) isomerism
(b) enantiomerism
(c) allotropy
(d) anisotropy

7. The metal reacts with cold water to produce hydrogen is .
(a) Magnesium
(b) Aluminium
(c) Calcium
(d) Iron

8. Which inert gas is used in the advertisement hoarding shown in the given picture?

(a) Radon
(b) Argon
(c) Krypton
(d) Neon

9. In metal reactivity series the most reactive metal are at
(a) Top
(b) Bottom
(c) Middle
(d) None

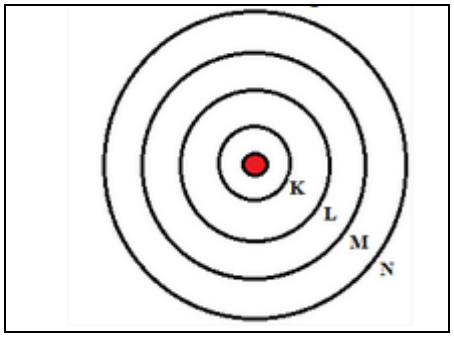
10. When the temperature of water increases above 0°C up to 4°C, its density _____.
(a) decreases
(b) increases
(c) becomes zero
(d) remains unchanged

11. Hydrogen burns in oxygen to form _____.
(a) hydrochloric acid
(b) water
(c) hydrogen sulphide
(d) ammonia

12. The credit for the discovery of hydrogen goes to _____ ..
(a) Rutherford
(b) James ChadwickAcids, bases
(c) Henry Cavendish
(d) Satyendra Nath Bose

13. The process of removing oxygen from their compounds is called _____.
(a) Reduction
(b) Combination
(c) Synthesis
(d) Oxidation

14. Which of the following shells represent the orbit number (n) = 2?



(a) K shell
(b) L shell
(c) M shell
(d) N shell

15. The _____ of water enables aquatic animals to survive in a reservoir where the surface layer of water has frozen.
(a) anomalous expansion
(b) anomalous contractionlead
(c) volume
(d) Temperature

Question 2

(A) Define Matter. State the main postulates of kinetic theory of matter. [5]

(B) Fill in the blanks and rewrite the sentences: [5]
1. The density of water is maximum at _____.
2. Galvanising is a process in which iron and steel are coated with a thin layer of _____ to protect them from corrosion.
3. The process of removing oxygen from its compounds is called _____.
4. The process in which a solid directly changes into a gas is called_____.
5. A change which alters the composition of a substance is known as a _____ change.

Question 3

(A) State whether the following statements are true or false.
Rewrite the false statement. [5]
1. Distilled water is used as an electrolyte in the electrolysis of water.
2. Graphite is the purest form of carbon.

3. Charcoal is good adsorbent.
4. Carbon monoxide is a poisonous gas.
5. The rays emitted from the cathode towards the anode in the discharge tube are called cathode rays.

(B) Explain efflorescence and deliquescence with the help of an example. [5]

Question 4

(A) Explain the Greenhouse Effect. How can the effect be controlled? [5]

(B) State physical properties of water. How does anomalous expansion of water helps aquatic organism in cold climates? [5]

Question 5

(A) Describe Rutherford's scattering experiment. [5]

(B) Draw a neat labelled diagram for the laboratory preparation of hydrogen. Give balanced equations for reaction and how is hydrogen gas is collected? Why? [5]

Question 6

(A) Explain with example:

1. Combination reaction
2. Decomposition reaction
3. Displacement reaction
4. Double displacement reaction
5. Neutralisation reaction. [5]

(B) State the atomic number, mass number and electronic configuration for each of the following elements: [5]

1. Carbon [p = 6, n = 6]
2. Helium [p = 2, n = 2]
3. Magnesium [p = 12, n = 12]
4. Boron [p = 5, n = 6]
5. Sodium [p = 11, n = 12]

Question 7

(A)

1. Differentiate between physical change and chemical change [3]
2. State the formula of the following compounds: [2]
   a. Ammonium bicarbonate
   b. Aluminium oxide

(B)

1. Explain the term compound with suitable examples. [2]
2. What is destructive distillation? What are the products formed due to the destructive distillation of coal? [3]