

MODEL PAPER CHEMISTRY CLASS 10

NOTE: Attempt all questions of Section-A by filling the corresponding bubble on the **MCQs RESPONSE SHEET**. It is mandatory to return the attempted MCQs sheet to the Superintendent within given time.

SECTION –A

Time: 20 Minutes

Marks: 12

- The reaction which proceeds in both directions is called:
 - Reversible
 - Irreversible
 - Spontaneous
 - Non-Spontaneous
- pH value less than 7 indicates the solution is:
 - Acidic
 - Basic
 - Neutral
 - No effect
- Which of the following is the simplest member of organic compound:
 - Formic Acid
 - Formaldehyde
 - Methane
 - Methanol
- In alkanes the carbon atoms are linked together by:
 - Single covalent bond
 - Double covalent bond
 - Triple covalent bond
 - Co-ordinate covalent bond
- What is the physical state of first four alkanes?
 - Solid
 - Liquid
 - Gas
 - Plasma
- The molecular formula of fructose is?
 - $C_6H_{12}O_6$
 - $C_7H_{44}O_7$
 - $C_{12}H_{22}O_{11}$
 - $C_{18}H_{32}O_{16}$

7. The temperature of thermosphere is up to?
- A. -60 to 900°C
 - B. -70 to 1000°C
 - C. -80 to 1100°C
 - D. -90 to 1200°C
8. Ozone is the allotropic form of:
- A. Osmium
 - B. Oxygen
 - C. Argon
 - D. Oganesson
9. Which type of Hepatitis spreads through polluted water?
- A. Hepatitis A
 - B. Hepatitis B
 - C. Hepatitis C
 - D. Hepatitis A&B
10. How many basic steps are involved in sewage water treatment?
- A. 3
 - B. 4
 - C. 5
 - D. 6
11. Solid form of petroleum is known as:
- A. Asphalt
 - B. Crude Oil
 - C. Naphta Petrol
 - D. Fuel Oil
12. Process in which metal ions are reduced to free metals is called?
- A. Roasting
 - B. Smelting
 - C. Bessemerization
 - D. Concentration

SECTION-B

Time: 2 Hours 40 Minutes

Marks: 32

1. Attempt any **EIGHT** of the following short questions. Each question carries 4 marks.
- i. Define K_c ? What is the importance of K_c ?
 - ii. Define Bronsted-Lowry concept of acid and bases. Give example.
 - iii. Differentiate between Aliphatic and Aromatic Organic compounds.
 - iv. Write at least four characteristics of Organic compounds.
 - v. Draw structural formula of following Organic compounds.
 - a. 2-Methyl butane
 - b. 2,4-dimethyl butane
 - c. 2,2,4-trimethyl hexane
 - d. 3-ethyl 4-methyl hexane
 - vi. Define Glycosidic Linkage? Support your answer with example.
 - vii. How many vitamins are included in Vitamin-B complex? List three deficiencies related to Vitamin-B?
 - viii. Write any four causes of Ozone layer depletion?
 - ix. Define hydrogen bonding in water with the help of structure?
 - x. Write two main differences between synthetic and organic fertilizers.
 - xi. What are raw materials used for the manufacture of sodium carbonate?

SECTION-C

Marks: 21

NOTE: Attempt any **THREE** of the following questions. Each question carries 7 marks.

2.
 - i. What are the main conditions for attaining equilibrium in chemical reaction? 4
 - ii. Write any three ways in which Organic compounds can be represented? 3
3.
 - i. Calculate pH and pOH of 0.01 molar HCl? 3
 - ii. Draw flow sheet diagram of urea? 4
4.
 - i. Write steps involved in hydrogenation of alkynes? 4
 - ii. How permanent hardness is removed by using washing soda? Mention any three important reactions? 3
5.
 - i. Define peptide linkage? Support your answer with example. 4
 - ii. Write three anthropogenic sources of air pollution. 3