

Total Time: 3:00 HoursChemistry (10th)Total Marks: 65

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

VERSION: C

Instructions:

- Please attempt Section-A on the MCOs Answer Sheet only.
- Only black ball point or marker may be used for shading the relevant circle.
- Please make sure that there is no cutting, over writing, erasing, or multiple circles shading.

Time Allowed: 20 Minutes"Section - A"Marks: 12

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

1. Volatile organic compounds such as methane gas is naturally produced by:

(A) Rock weathering (B) Wet lands (C) Forest fire (D) Volcanic eruption

2. Earth is the only planet of solar system that contain:

(A) Natural gas (B) Water Coal (C) Petroleum

3. What is the purpose of chlorinating swimming pool?

(A) To remove dirt (B) To heat the pool water (C) To kill germs To balance PH

4. Which of the following is used as raw material for manufacture of plastics, resins, various adhesives ect?

(A) Ammonium Urea (C) Sodium chloride (D) Lime stone

5. Which of the following is a characteristic of petroleum?

Solid at room temperature (B) It is a pure compound (C) It is mixture of hydrocarbons (D) It is not flammable

6. When concentration of reactants is changed in a system at equilibrium, the reaction will:

Move in forward or in reverse direction No effect on system (C) Forward reaction stops (D) Reverse reaction stops

7. Lewis concept of acids and base is based on the idea of:

Ionization energy (B) Electron pair transfer (C) Proton transfer Aqueous solution

8. Phenomenon in which two or more compounds having same molecular formula but different structural formula is termed as:

(A) Resonance (B) Isomerism Super position (D) Chirality

9. The functional group present in
- CH_3COOH
- is:

(A) Aldehyde (B) Ketone (C) Carboxylic acid Alcohol

10. On complete combustion hydrocarbons produces:

Carbon dioxide and hydrogen Carbon dioxide and water (C) Carbon mono oxide and water (D) Carbon mono oxide and hydrogen

11. Poly saccharides are called non-sugars because they are:

(A) Sweet in taste (B) Bitter in taste Tasteless (D) Sour in taste

12. What is the main environmental impact of CFCs:

(A) Acid rain (B) Global warming (C) Land pollution Water pollution

“Section – B”

Marks: 32

Q-2. Write short answers to any eight (8) of the following parts. All parts carry equal marks:-

- i. In a reaction mixture concentration of PCl_3 is 1.5 M, Cl_2 is 1.5 M, and that of PCl_5 is 3M calculate the value of K_c for the given reaction. $\text{PCl}_3 + \text{Cl}_2 \rightleftharpoons \text{PCl}_5$
- ii. Classify the following as Bronsted lowry acid and base . Justify your answer with reason.
i: HNO_3 ii: CH_3COO^-
- iii. What types of sugars are present in nucleic acids, write their structural formula.
- iv. What is the role of Mode of bonding and strength of covalent bond in diversity of organic compounds with examples.
- v. Write reaction involves in the formation of methyl and ethyl? Also write the name of alkanes from which they are formed.
- vi. Draw electron dot structure C_3H_8 (Propane) and C_2H_2 (Ethyne).
- vii. Explain with the help of examples two types of sources of proteins..
- viii. What are the sources of Vitamin A, Vitamin B, Vitamin C and Vitamin D?
- ix. How does acid rain effects the human health and soil.
- x. Explain Clark's method of removing temporary hardness of water with help of chemical reactions.
- xi. What types of materials are used as electrodes in electro refining of copper, write chemical reaction occurring at cathode and anode.

"Section - C"

Marks: 21

Note: Answer any three (3) questions. All questions carry equal marks:-

- Q-3. (a) Write down the i: Forward reaction. ii. Reverse reaction.
iii: reactant for the given reaction.
(b) Give structural and molecular formulae of Pentane and Hexane.
- Q-4. (a) Write dissociation reactions of the following compounds. i. $\text{Mg}(\text{OH})_2$
ii: $\text{Ca}(\text{OH})_2$ iii: $\text{Al}(\text{OH})_3$
(b) What is the difference between straight chain and branched chain organic compounds explain with the help of examples.
- Q-5. (a) Write dehalogenation reaction of 1,1, 2,2- tetra chloroethane.
(b) How ozone depletion occurs due to atomic Oxygen. Explain with chemical reactions.
- Q-6. (a) How enzymes are used in paper industry?
(b) Explain water born disease with at least two examples.