10th class Chemistry Guess paper

2021

Unit 9

Important Short Questions

1. Reversible & irreversible reaction
2. Dynamic equilibrium & Static equilibrium
3. Law of mass action
4. Equilibrium constant
5. How dynamic equilibrium constant is established
6. Relationship b/w active mass and rate of reaction
7. How direction of a reaction can be predicted?

Important long questions:

1. What is meant by a complete & incomplete reaction? Why reactions do not go to completion?
2. Give the macroscopic characteristics of forward reactions, reverse reactions & dynamic equilibrium.
3. State the law of mass action and derive the expression for the equilibrium constant for a given reaction A +B>< C+D / general reaction.
4. Explain the importance of equilibrium constant.
5. Describe a reversible reaction with the help of an example & graph.

Unit 10

Important Short Questions

1. Define Acid & base according to Arrhenius.
2. Write limitations of Arrhenious concept.
3. What is Bronsted Lowry Theory?
4. Differentiate b/w Lewis acid & base.

5. Why H+ ion acts as a Lewis acid?
6. Give four uses of sulphuric acid.
7. Define pH. What is the pH of pure water?
8. Define pH of solution.
9. Define indicators.
10. What are salts? Give two examples.
11. Give four uses of salts.
12. Write four uses of sodium silicate, calcium chloride, calcium oxide 13. Differentiate b/w acidic salts & basic salts.

Important long questions:

1. Compare the physical properties of acids & bases with examples.
2. Explain the Arrhenius concept of acids & bases with examples. What are limitations of this concept?
3. Explain Lewis concept of an acid & a base.
4. What are indicators? How they are used to determine pH of acidic, basic and neutral solutions.
5. Define salts. Explain their characteristics and uses of some important salts. 6. Give the application/uses of some important bases.
7. Explain Bronsted Lowry concept of an acid and base with examples.

Unit 11

Important Short Questions

1. Define Vital force theory.
2. Write definition of organic compounds
3. Define Catenation.
4. Briefly explain molecular formula with example.
5. Write functional group of alcohol.
6. How coal is formed?
7. Define functional group.
8. What is dot & cross formula?
9. Define open chain/acyclic compound.
10. Define alicyclic/Non-Benzenoid compounds.

11. Define Heterocyclic compounds with example
12. Define isomerism. How many isomers pentane have?

Important long questions:

1. Write a note on classification of organic compounds.
2. Compare the general characteristics of organic & inorganic compounds. 3. Define homologous series. Write its characteristics.
4. Define functional group. Explain the functional group of alcohols, ethers, aldehydes, ketones, carboxylic acid, esters, etc.
5. Explain the meaning of molecular formula, structural formula, condensed structural formula & electronic formula.

Unit 12

Important Short Questions

1. Define hydrocarbons.
2. Define open chain hydrocarbons & Closed chain hydro carbons 3. What are Saturated & unsaturated hydrocarbons?
4. Why alkanes are called “Paraffins”?
5. What is meant by Hydrogenation of alkenes?
6. Give Uses of ethane & ethane.

Important long questions:

1. Define hydrocarbons. How are they classified?
2. Explain methods for preparation of alkanes & alkenes. 3. Discuss physical properties of alkenes & alkynes.
4. Write uses of ethane, ethane, methane & acetylene.
5. Give chemical reactions of alkanes.

Unit 13

Important Short Questions

1. Define Biochemistry.
2. Define Polysaccharides & give their properties
3. write Characteristics of monosaccharides.
4. Define amino acid. Give its general formula.
5. Differentiate b/w essential & non essential amino acids.
6. Write Sources & uses of vitamin A, Vitamin D.
7. Carbohydrates & their uses
8. Difference b/w ghee & oil
9. Function of DNA
10. Types of vitamins
11. How you justify RNA works like a messenger?

Important long questions:

1. Define monosaccharides & oligosaccharides. Give their characteristics. 2. Give uses and sources of carbohydrates. 3. Define amino acid. Explain how are they building blocks of proteins? 4. Explain the sources & uses of proteins & lipids. 5. Define vitamins. Discuss the types, sources, uses & importance of vitamins. Also write the effects of deficiency of vitamins.
6. What are carbohydrates? How monosaccharides are prepared?

Unit 14

Important Short Questions

1. Atmosphere & its spheres
2. Diff. b/w atmosphere & environment
3. Name the major constituents of troposphere
4. Define pollutants. Differentiate b/w primary & secondary pollutants. 5. Green house effect
6. Global warming & its effects
7. Why CO_2 is called green house gas?
8. CO_2 is responsible for heating up atmosphere, how?
9. Effects of acid rain

10. Define Ozone hole & where was it notices first?
11. Effects of ozone depletion
12. Where the ozone layer is found?
13. How acid rain increase the acidity of soil?
14. Why CO is considered a health hazard?
15. How sulphur containing compound are emitted naturally?

Unit 15

Important Short Questions

1. How water rises in plants?
2. Four properties of water
3. Define capillary action
4. Why the water molecule is polar?
5. Soft water & hard water
6. How temporary hardness of water can be removed by Clark's method? 7. Define boiler scales. How are they removed?
8. Why are pesticides & fertilizers used?
9. Why non-polar compounds are insoluble in water?
10. How water rises in plants?
11. Disadvantages of detergents.
12. Name some water borne diseases.
13. Define Fluorosis.

Unit 16

Important Short Questions

1. Define metallurgy.
2. Difference b/w Minerals & Ores.
3. State gravity separation
4. Electromagnetic separation
5. Define Roasting. How is it carried out?
6. Raw materials of Solvey's process

7. Advantages of Solvey’s process
8. Petroleum
9. Formation of petroleum
10. How roasting is carried out?
11. Difference b/w crude oil & residual oil
12. Difference b/w diesel oil & fuel oil.
13. Which raw material are used in the manufacturing of urea? 14. How $NaHCO_3$ is converted in Na_2CO_3?