10th CLASS CHEMISTRY GUESS PAPER 2023.
ACCOURDING TO NEW SCHEME
ALL PUNJAB BOARD

CHAPTER NO. 9: CHEMICAL EQUILIBRIUM

KNOWLEDGE BASED QUESTIONS: 50%

1. Define chemical equilibrium state?
2. Why is equilibrium state attainable from either way?
3. What is static equilibrium state?
4. What is dynamic equilibrium state?
5. What are irreversible reactions? Give a few characteristics of them?
6. Define chemical equilibrium state.
7. Give the characteristics of reversible reaction.
8. How dynamic equilibrium is established?

UNDERSTANDING BASED - 35%

1- Why reversible reaction never complete?
2- Why the amount of reactants and products do not change in a reversible reaction

APPLICATION BASED – 15%

1. Why the extent of a reaction can be predicted.

LONG QUESTION

1. Describe equilibrium constant and its units..
2. Write down the macroscopic characteristics of dynamic equilibrium
3. State the law of mass action and derive the expression for equilibrium constant for general reaction.
4. Describe the characteristics of reversible and irreversible reactions? Give example.
5. Write down the macroscopic characteristics fo forward and reverse reactions.

CHAPTER NO. 10: ACID, BASES AND SALTS

KNOWLEDGE BASED QUESTIONS: 50%

1. Define a base and explain that all alkalis are bases, but all bases are not alkalis.
2. Define Bronsted-Lowry base and explain with an example that water is Bronsted-Lowry base.
3. Name two acids used in the manufacture of fertilizers.
4. Define pH. What is the pH of pure water?
5. Na2SO4 is neutral salt while NaHSO4 an aid salt. Justify.
6. Give a few characteristics Properties of Salts.
7. Name an acid used in the preservation of food.
8. Why H+ ion acts as a Lewis Acid?
9. How can you Justify the Pb(OH)NO3 is a basic salt?
10. What kind of bond is formed between Lewis acid and a base?

UNDERSTANDING BASED - 35%

1. Why BF3 behaves as a Lewis acid?
2. Why pure water is not a strong electrolyte?
3. Why ionic-product constant of water is temperature dependent?
4. Define hyper acidity.
5. How conjugate acids and conjugate bases are formed?
6. What is indicator? Give two example

APPLICATION BASED – 15%

1. Differentiate between 'p' and 'pH'.
2. How will you justify salts are neutral compounds?

LONG QUESTION

1. What are conjugate acids and bases? Explain with example
2. Explain the Lewis concept of acids and bases.
3. Describe the reactions of acids with metals.
4. What are indicators? Explain.
5. Write notes on basis salts and double salts.

NUMERICAL:

1. Calculate the pH of 0.1 M KOH?
2. Calculate the pOH of 0.004 M 0.004 M HNO3?

CHAPTER NO.11 ORGANIC CHEMISTRY

KNOWLEDGE BASED QUESTIONS: 50%

1. What is meant by the term of Catenation?
2. How is coal formed?
3. What is the important of natural gas?
4. How are alkyl radical formed? Explain with examples.
5. What is the difference between n-propyl and isopropyl radicals? Explain with structure.
6. Define functional group with an example.
7. What is ester group? Write down the formula of ethyl acetate.
8. Write down the dot and cross formulae of n-butane and isobutene
9. Write classification of coal
10. Compare the homocyclic and heterocyclic compounds.
11. What is condensed formula? Give an example

UNDERSTANDING BASED - 35%

1. Why and how carbon complete its octet?
2. Why are the melting and boiling points of organic compounds low?

APPLICATION BASED – 15%

1. What is coke? For what purpose it is used?
2. Which is the best quality of coal?
3. What is destructive distillation?
4. How is an alcohol tested?

LONG QUESTION

1. How is coal formed? What are the different types of coal?
2. What is destructive distillation of coal?
3. What are alkyl radical? Write down the radicals of propane and butane.
4. Write down the characteristics of homologous series.

CHAPTER NO. 12 HYDROCARBONS.

KNOWLEDGE BASED QUESTIONS: 50%

1- Difference between saturated and unsaturated hydrocarbon.
2- Why the alkanes are called 'paraffins'?
3- Why are the alkanes used as fuel?
4- Why are the alkenes called 'Olefins'?
5- What do you know about hydrogenation of alkenes?
6- What are the addition reactions? Explain with an example.
7- How hydrogenation of ghee is carried out? Give chemical equations.

UNDERSTANDING BASED - 35%

1. Why are hydrocarbons considered as parent organic compounds?

APPLICATION BASED – 15%

1. How can you prepare propene from propyl alcohol?
2. Write the formula of oxalic aicd.
3. What is the difference between glycol and glyoxal?

LONG QUESTION

1. Write down five physical properties of alkenes.
2. Alkanes are source of heat. Explain it.

CHAPTER NO. 13 BIOCHEMISTRY

KNOWLEDGE BASED QUESTIONS: 50%

1. Give the characteristics of monosaccharides.
2. What is the difference between glucose and fructose?
3. Give the characteristics of polysaccharides.
4. Describe the uses of carbohydrates.
5. How are proteins formed?
6. How is gelatin obtained?
7. What is the function of DNA?
8. How do you justify that RNA work like a messenger?
9. What is the difference between ghee and oil?
10. What do you mean by genetic code of life?
11. Explain peptide linkage.
12. Name three fatty acids with their formulae.

UNDERSTANDING BASED - 35%

1. Plants are source of oils, Justify.

APPLICATION BASED – 15%

1. Which element are found in proteins?
2. How are amino acids bonded with each other

LONG QUESTION

1. Explain Oligosaccharides.
2. Explain the sources and uses of lipids.
3. Write down the sources and uses of carbohydrates.
4. What are polysaccharides? Give their properties.
5. What is meant by vitamins? Explain its types in detail.

CHAPTER NO. 14 ENVIRONMENTTAL CHEMISTRY 1 : THE ATMOSPHERE

KNOWLEDGE BASED QUESTIONS: 50%

1. Different between primary and secondary air pollutants.
2. State the major sources of CO and CO2 emission.
3. How is Ozone formed in stratosphere?
4. Differentiate between atmosphere and environment.
5. Describe the two effect of using polluted water.
6. Why the temperature of upper stratosphere is higher?
7. How does acid rain increase the acidity of soil?
8. Define pollutant and contaminate.
9. Why is CO2 called a greenhouse gas?
10. Give two effects of global warming.

UNDERSTANDING BASED - 35%

1. Why does acid rain damage buildings?
2. How is acid rain produced?
3. Comment: burning in open air is preferred.

APPLICATION BASED – 15%

1. Why are plants dying day by day? Comment.
2. How is aquatic life affected by acid rain?
3. Why the flood risks are are increasing?

LONG QUESTION

1. Give the characteristics of tropospher.Why temperature decreases upward in this sphere?
2. Why is CO considered a health hazard?
3. Where does ozone layer lie in atmosphere? How is it depleting and how can we prevent depletion?

CHAPTER NO. 15 WATER

KNOWLEDGE BASED QUESTIONS: 50%

1. What is capillary action?
2. Which forces are responsible for dissolving polar substances in water?
3. How does sodium zeolite sodium water?
4. Why are non –polar compounds insoluble in water?
5. What are industrial effluents?
6. What is dysentery?
7. Difference between soft and hard water?
8. What do you mean by boiler scales? How are they removed?
9. Define Leaching process.
10. Mention the disadvantages of detergents.
11. Define chlorination.
12. How water borne diseases can be prevented.
13. What two bad effects of industrial effluents.

UNDERSTANDING BASED - 35%

1. Point out two properties of water that make it an excellent solvent.
2. Which salts are responsible for hardness of water?
3. How decaying plants consume oxygen?

APPLICATION BASED – 15%

1. Why is the use of detergents increasing day by day?
2. How does water use as cleaning agent in industries causes' pollution?
3. What is dysentery?

LONG QUESTION

1. Give some disadvantages of hard water.
2. Describe the reasons of water hardness.
3. Explain domestic effluents.

……BEST OF LUCK……

CHAPTER NO. 16 CHEMICAL INDUSTRIES.

KNOWLEDGE BASED QUESTIONS: 50%

1. What are the advantages of Solvay's process?
2. How $NaHCO_3$ is converted to Na_2CO_3?
3. What is gasoline? Give its uses.
4. Describe the formation of Petroleum.
5. Give a use of kerosene oil?
6. Describe the difference between diesel oil and fuel oil?
7. What is the difference between crude oil and residual oil
8. Which petroleum fraction is used in dry cleaning?
9. What is difference between slag and matte?

UNDERSTANDING BASED - 35%

1. What do you mean by anode mud?
2. Why is lime added in the smelting process?
3. Why a small amount of coke is required in the smelting profess? How is slag formed during smelting.

APPLICATION BASED – 15%

1. Which raw materials are required for formation of sodium carbonate?
2. Give the reaction of formation of ammonia in the process.
3. How many stages are involved in the formation of Urea?
4. In how many fractions crude oil is separated?

LONG QUESTION

1. How crude oil is refined? Explain two important fractions of petroleum along with their usage?
2. Describe the methods of ore concentration.
3. Give the uses of diesel oil and fuel oil.
4. Describe different steps of urea preparation.