Short Questions Q1. How hardness is produced in water? Q2. Write the disadvantages of hard water? Q3. How can we remove the hardness of water? Q4. Write the two chemical properties of water? Q5. What are the advantages of sterilized water? Q6. Discuss the major diseases? Q7. What are organic compound? to achieve Q8. What are inorganic compound? Q9. What are amorphous forms of carbon? Q10. Write the names of allotropic forms of carbon? Q11. What do you know about the structure of Bucky balls? Q12. What is meant by catenation? Q13. Which gas is dissolved in soda water drinks? Q14. What is the percentage of carbon in coal? Q15. How can carbon black be obtained? Q16. How graphite is used in process of electrolysis? Q17. How can you test carbon dioxide? Q18. What is the pure form of silicon dioxide? State its occurrence. Q19. What is a silicon chip? Q20. What is the basic building unit of silica? Q21. What is olivine? Q22. Define oxidation and reduction? Q23. Give two chemical properties of nitric acid? Q24. Gives names of different type of oxide? Q25. Why sulphuric acid behaves as a dehydrating agent? Q26. Write two uses of sulphuric acid? Q27. What is hydration? Give an example. Q28. What is meant by allotropy? Explain with examples. Q29. What is carbon black? Q30. Write down the uses of hydrogen peroxide? Q31. How nitrogen is separated from oxygen during industrial preparation of nitrogen? Q32. How chlorine reacts with water? Write equations.

Q33. How oxygen is converted into ozone present in stratosphere? Give chemical reaction only.

Q1. Explain the procedure of experiment used to identify ketones using 2, 4-dinitrophebyl hydrazine test.
Q2. Write down apparatus used for the identification of saturated organic compounds by KMnO₄ test.

Q3. Define law of mass action and derive the general expression for equilibrium constant for a general reaction.

Q6. State the Law of Mass Action and derive the expression for equilibrium constant for a general reaction.

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Q34. Nichrome is an alloy. Write down its composition

Q39. How sodium hydroxide is prepared commercially?

Q36. Write uses of hydrogen acid.

Q38. How silver chloride is formed?

Q4. (a) Describe four uses of carbohydrates. (b) Describe any three effects of "Global Warming".

Q5. Describe composition of atmosphere.

(b). write a note on natural fertilizers

(b). Give three effects of acid rain.

Q7. (a) Write four chemical properties of acid.

(b). Write down any five physical properties of Alkanes.

Q8. (a) Write Down four macroscopic properties of dynamic equilibrium.

Q9. (a) Define hard water. Write down methods to remove temporary hardness

(B). what are conjugate acids and bases? Describe with example.

Q10. (a) Write a note on fractional distillation of petroleum.

Subjective

Q35. Write down the reaction of water and oxygen with ethane.

Q40. Describe the physical properties of sodium hydrogen carbonate.

Q37. How bleaching powder reacts with hydrogen peroxide?