



Class 10th

Carbon and its compounds

30 Marks

Q1) Draw the electron dot structure for the following compounds. (3)

- a) CO_2
- b) S_8
- c) N_2

Q2) The two characteristic features in carbon give rise to a large number of compounds. Briefly explain the same. (3)

Q3) Draw the structural isomers for Hexanone. Also, give their IUPAC names. (2)

Q4) Draw the structures for the following; (6)

- a) Ethanoic Acid
- b) Hexanal
- c) Bromopentane
- d) Butanone

Also, Draw and name the structural isomers for Bromopentane.

Q5) Write chemically balanced reactions for the following; (6)

- a) Sodium Metal with Ethanol
- b) Esterification
- c) Ethanoic Acid with sodium hydroxide
- d) Saponification
- e) Ethanoic acid with sodium carbonate/ hydrogen carbonate (Both)

Q6) How would you bring about the following conversions? (3)

(Write the complete reactions with names)

- a) Ethanol to Ethanoic Acid
- b) Alkene to Alkane
- c) Ethanol to Ethene

Q7) Explain the soap action briefly. Would you be able to check if water is hard by using a detergent? (3)

Q8) What are oxidizing agents? Why is the conversion of ethanol to ethanoic acid an oxidation reaction? (4)



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