

# AMIT AJMANI'S ACADEMY

D-16/82, SECTOR-7, ROHINI

PH: 9810476588, 9953371470

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## X CHEMISTRY CLASS TEST

M.M.-40

Name of Student: \_\_\_\_\_ Class & Sub: \_\_\_\_\_

Topic of Test: CARBON AND ITS COMPOUNDS No. 1 Date : \_\_\_\_\_

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1. Write the chemical and structural formula of Benzene and cyclo pentane 3
2. What are structural isomers? 1
3. Illustrate possible isomers for Butane and pentane with common and IUPAC names. 7
4. Differentiate between diamond and graphite. (Any 6 Differences) 3
5. Define the term allotropes giving examples. 2
6. Covalent compounds are bad conductors of electricity. Explain. 2
7. Explain the reason for carbon having huge number of carbon compounds? 2
8. Why are unsaturated hydrocarbons more reactive than saturated hydrocarbons? 1
9. Name the cyclic hydrocarbon containing three double bonds. 1
10. Differentiate between saturated and unsaturated hydrocarbons giving their general formula and one example each. 3
11. Define Homologous Series. Write its 5 Characteristics. 7
12. Define Cateneation. 1
13. What are Haloalkanes? Give 2 egs. With their IUPAC NAMES 2
14. State reasons why:
  - a. Graphite is used as a lubricant.
  - b. Graphite is a good conductor of electricity.
  - c. Graphite is used in lead pencils.
  - d. Diamond is used as abrasive (cutting tool).
  - e. Diamond is the hardest substance known. 5

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Name of Student: \_\_\_\_\_ Class & Sub: \_\_\_\_\_

Topic of Test: CARBON AND ITS COMPOUNDS No. 2 Date : \_\_\_\_\_

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- Define the following:
    - Rectified Spirit
    - Absolute alcohol2
  - Write short notes on following:
    - Esterification
    - Dehydration of Alcohols
    - Denatured alcohol6
  - What is Glacial Ethanoic Acid? 1
  - Give reactions to prepare the following:
    - Propene from Propanol.
    - Butanoic acid from Butanol.4
  - State any 6 uses of Ethanol. 3
  - How will you test the presence of alcohols? 2
  - Give chemical equations to show what happens when:
    - Sodium metal is dropped in test tube containing Propanol.
    - Ethanol reacts with Ethanoic acid
    - Acetic acid reacts with Caustic Soda.
    - Ethanol is oxidized.
    - Ethanoic acid reacts with Soda Ash.
    - Acetic acid reacts with Baking soda.12
  - State any four uses of Ethanoic acid. 2
  - How will you test the presence of Ethanoic Acid. 2
  - Name any two oxidizing agents with their formula. 2
  - State the general formula of Alcohols and Acids. 2
  - Why are alcohols considered as good fuels? Any 4 points. 2
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### ANSWERS

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## X CHEMISTRY CLASS TEST

M.M.-30

Name of Student: \_\_\_\_\_ Class & Sub: \_\_\_\_\_

Topic of Test: CARBON AND ITS COMPOUNDS No. 3 Date : \_\_\_\_\_

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1. A hydrocarbon A is active ingredient of wine and cough syrups. A on oxidation with acidified potassium dichromate forms a compound B. Identify A and B and write the chemical equations involved. 2
2. Explain the cleansing action of soap with the help of suitable diagram. 3
3. How can you obtain Ethene, Ethanoic acid and Esters from pure ethanol? Give the chemical equations of the reactions taking place. 3
4. Write the functional group & IUPAC name of  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$ . 1
5. Write the electron dot structure for  $\text{CH}_3\text{COCH}_3$ . 1
6. Give a test used to differentiate chemically between cooking oil and butter. 2
7. Explain the following terms with related chemical equations: Esterification, and Saponification. 4
8. Explain why saturated hydrocarbons give non sooty clear flame on complete combustion? 1
9. Define functional group. 1
10. Name the gas evolved when sodium carbonate reacts with ethanoic acid. 1
11. Name an oxidizing agent other than alkaline potassium permanganate which oxidizes ethanol to carboxylic acid. 1
12. What is vinegar? 1
13. Write common names of ethanol, ethanoic acid, methanal, and propanone. 4
14. Explain substitution and addition reactions with examples of each. 3
15. Write a short note including reaction on hydrolysis of esters. 2

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M.M.-30

Name of Student: \_\_\_\_\_ Class & Sub: \_\_\_\_\_

Topic of Test: CARBON AND ITS COMPOUNDS No. 4 Date : \_\_\_\_\_

1. How can ethanol and ethanoic acid be differentiated on the basis of their physical and chemical properties? 3
2. What is the difference in molecular masses and in number of carbon and hydrogen atoms between two successive members of a homologous series? 1
3. Name products obtained by complete combustion of saturated hydrocarbons. 1
4. What are detergents? 1
5. What is a homologous series? Write the homologous series of alcohols up to four carbon atom giving their common as well as IUPAC names. 4
6. Differentiate between soaps and detergents. Any 4 2
7. Soaps form scum with hard water. Why? How this problem is overcome? 2
8. What is hydrogenation? Give reaction. What is its industrial application? 3
9. Write an activity to show the acidic nature of ethanol. Give the chemical equation of the reaction taking place. 2
10. What are oxidizing agents? 1
11. Giving examples, explain why some substances burn without a flame, burn with a flame and burn with a flame and soot is formed? 2
12. Draw the structures for the following compounds.
  - a. Ethanoic acid
  - b. Bromopentane
  - c. Butanone
  - d. Hexanol 4
13. Complete the following equations: 3
  - (a)  $\text{CH}_3\text{COOH} + \text{Na}_2\text{CO}_3 \rightarrow$
  - (b)  $\text{CH}_2 = \text{CH}_2 + \text{H}_2 \xrightarrow{\text{Ni}/\Delta}$
  - (c)  $\text{CH}_3\text{CH}_2\text{OH} + [\text{O}] \xrightarrow{\text{alkaline KMnO}_4}$
14. Name the catalyst commonly used in the process of conversion of vegetable oils into fats. 1