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**Max Time : 1 hr** **Class = 12th Chemistry Test Max Marks : 25**

**Alcohols , Phenols and Ethers – 2**

1. Multiple choice questions : [ 1 X 3 = 3 ]
2. CH3CH2OH can be converted into CH3CHO by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Catalytic Hydrogenation.
4. Treatment with LiAlH4.
5. Treatment with pyridinium chlorochromate.
6. Treatment with KMnO4.
7. Which of the following compounds will react with sodium hydroxide solution in water?

|  |  |  |  |
| --- | --- | --- | --- |
| a) C6H5OH | b) C6H5CH2OH | c) (CH3)3 COH | d) C2H5OH |

1. Complete the following analogue :

Anisole : C6H5OCH3 :: Phenetole : \_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a) C6H5OC6H5 | b) CH3OCH3 | c) C6H5OC2H5 | d) C2H5OC2H5 |

1. Illustrate with examples the limitations of Williamson synthesis or the preparation of certain type of ethers. [ 2 ]
2. Write the equations of the following reactions : [ 2 ]

(i) Nitration of anisole (ii) Bromination of anisole in ethanoic acid medium

1. Write the mechanism of the following reaction : [ 2 ]

2 CH3CH2OH CH3 – CH2 – O – CH2 – CH3 .

1. How could you obtained Picric acid (2, 4, 6-trinitrophenol) from phenol? [ 2 ]
2. What happens when : [ 2 ]

(a) Phenol reacts with conc. HNO3. (b) Ethyl chloride reacts with NaOC2H5?

Write the chemical equations involved in the above reactions.

1. Write the mechanism of acid catalysed dehydration of ethanol to yield ethene. [ 3 ]
2. Write the name of reagents and equations for the preparation of the following ethers by Williamson’s synthesis : [ 3 ]

(i) 1 – Propoxy propane (ii) Ethoxy benzene (iii) 2 – methoxy – 2 – methyl propane

1. Explain the following reactions with example: [ 2 x 3 = 6 ]

(i) Kolbe’s reaction (ii) Reimer – Tiemann reaction (iii) Williamson ether synthesis