**Karan Arora**  **R.L. Institute M: 9416974837**

**Max Time : 1 hr** **Class = 12th Chemistry Test Max Marks : 30**

**Aldehyde , Ketones and Carboxylic Acids**

1. Write the major product of following reaction : [ 1 ]

CH3 – CH CH – CH2 – CN

1. Write the equations involved in Stephen reaction. [ 1 ]
2. Write the equations involved in Etard reaction. [ 1 ]
3. Account : CH3CHO is more reactive than CH3COCH3 towards reaction with HCN. [ 1 ]
4. Draw the structure of 4 – chloro pentan – 2 – one. [ 1 ]
5. How can you convert : Benzene to Acetophenone. [ 1 ]
6. Explain Gattermann Koch reaction and Gattermann reaction with example. [ 2 ]
7. Write the products formed when Benzaldehyde reacts with the following reagents : [ 2 ]

(a) CH3 CHO in presence of dilute NaOH (b) Tollen’s reagent

1. Write chemical equations for the following reactions : [ 2 ]

(a) Propanone is treated with dilute Ba(OH)2.

(b) Acetophenone is treated with Zn (Hg)/Conc. HCl.

1. Predict the products of the following reactions: [ 2 ]

(a) (CH3)2 CO ? (b) C6H5 – CO – CH3 ? + ?

1. How do you convert Toluene to Benzoic acid? [ 2 ]
2. Explain the following reactions : [ 2 ]

(a) Wolf-Kishner reaction (b) Clemmensen reduction

1. What is meant by the following terms? Give an example of each. [ 3 ]

(a) Cyanohydrin (b) Semicarbazone (c) 2, 4 – DNP derivate

1. Draw the structure of the following derivates: [ 3 ]

(a) The 2 , 4 – dinitrophenylhydrazone of benzaldehyde. (b) Cyclo propanone oxime

(c) Acetaldehyde dimethyl acetal

1. Give simple chemical tests to distinguished between the following pairs of compounds: [ 3 ]

(a) Propanal to propanone (b) Acetophenone to Benzophenone

(c) Ethanal to Propanal

1. Explain Rosenmund Reduction and its limitations. [ 3 ]

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**Aldehyde , Ketones and Carboxylic Acids**

1. Write the major product of following reaction : [ 1 ]

CH3 – CH CH – CH2 – CN

1. Write the equations involved in Stephen reaction. [ 1 ]
2. What is Tollens’ reagent? Write one usefulness of this reagent. [ 1 ]
3. Account : CH3CHO is more reactive than CH3COCH3 towards reaction with HCN. [ 1 ]
4. Draw the structure of 4 – chloro pentan – 2 – one. [ 1 ]
5. How can you convert : Benzene to Acetophenone. [ 1 ]
6. Explain Gattermann Koch reaction and Gattermann reaction with example. [ 2 ]
7. Write the products formed when Benzaldehyde reacts with the following reagents : [ 2 ]

(a) CH3 CHO in presence of dilute NaOH (b) Tollen’s reagent

1. An organic compound ‘A’ molecular formula C5H8O2 is reduced to n-pentane on treatment with Zn-Hg/HCl. ‘A’ forms a dioxime with hydroxylamine and gives a positive iodoform test and Tollens’ test. Identify the compound ‘A’ and deduce its structure. [ 2 ]
2. Predict the products of the following reactions: [ 2 ]

(a) (CH3)2 CO ? (b) C6H5 – CO – CH3 ? + ?

1. How do you convert Toluene to Benzoic acid? [ 2 ]
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