## **Examination October 2020**

## B.Sc. S.Y (Sem-III)

## 2145 Chemistry Paper-VII (Organic Chemistry)

Time: One Hour Max. Marks: 25

Instruction:

• Solve any 25 questions

1 Which one of the following compound is obtained by the oxidation of secondary alcohols?.

(A)Aldehyde (B)Ketone (C)Amine (D)Ether

2 Which of the following is not the example of dihydric alcohol?

(A)Glycerin (B)Catechol (C)Resorcinol (D)p-hydroxy phenol

3 Ethylene glycol on treatment with phosphorus tri-iodide yields

(A)ethylene (B)ethylene di-iodide (C)ethyliodide (D)ethane

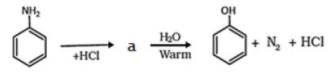
4 Reaction of aqueous sodium hydroxide on chlorobenzene gives which of the following products?

(A)o-chlorophenol (B)p-chlorophenol (C)phenol (D)no reaction

5 When phenol is treated with excess of bromine water, it gives which of the following product?

(A)3-bromophenol (B)2,4 dibromophenol (C)4-bromophenol (D)2,4,6-tribromophenol

6 What will be the product 'a' in the given reation?



(A)Enolate form (B)Benzene diazonium chloride (C)hydroxybenzene (D)Chlorobenzene

7 Ketones can be prepared in one step from which of the following process?

 $\hbox{(A)} Hydrolysis\ of\ esters \\ \hbox{(B)} Oxidation\ of\ primary\ alcohol } \hbox{(C)} Oxidation\ of\ secondary\ alcohol }$ 

8 The oxidation of benzyl chloride with lead nitrate gives which of the following compound?

(A)Benzaldehyde (B)Benzoic acid (C)Benzyl alcohol (D)Acetaldehyde

9 What reagents will be used in the preparation of benzaldehyde via Gattermann Koch synthesis?

(A)Carbon dioxide and HCl (B)Carbon monoxide and HCl (C)Oxygen and H2SO4 (D)Carbon monoxide and H2SO4

10 Formation of aromatic ketone forms from benzene by CH3COCI?

(A)Friedal craft alkylation (B)Friedal craft dealkylation (C)Friedal craft acylation (D)Friedal craft hydroxyalkylation

11 What is the name of the process in which aldehyde get oxidise in presence of air?

(A)Calcination (B)Cannizzaro reaction (C)Autoxidation (D)Baeyer villiger oxidation

 ${\bf 12}\ Condensation\ reaction\ is\ the\ reverse\ of\ which\ of\ the\ following\ reaction?$ 

(A)lock and key hypothesis (B)hydrolysis (C)oxidation (D)glycogen formation

 $13 \ Reduction \ of \ Aldehydes \ to \ hydrocarbon \ take \ place \ in \ the \ presence \ of \ which \ of \ the \ following?$ 

 $\hbox{(A)Zn amalgam and HCl acid} \qquad \hbox{(B)Pd/BaSO4} \qquad \hbox{(C)Anhydrous AlCl3} \qquad \hbox{(D)Ni/Pt}$ 

14 The conversion of acetophenone to acetanilide is best accomplished by using which reaction?

(A)Curtius rearrangement (B)Backmann rearrangement (C)Lossen rearrangement (D)Hofmann rearrangement

15 Which of the following is the strongest acid?

(A)CH3COOH (B)FCH2COOH (C)CICH2COOH (D)BrCH2COOH

16 Benzoyl chloride is prepared from benzoic acid by which of the following?

(A)Cl2, hv (B)SO2, Cl2 (C)Cl2, H2O (D)SOCl2

17 What is the name of the reaction when acetamide changes into methylamine?

(A)Hofmann bromamide reaction (B)Hofmann reaction (C)Friedel-Craft's reaction (D)Hinsberg reaction

18 When methyl iodide is heated with ammonia, what is the product obtained?

(A)Methylamine (B)Dimethylamine (C)Trimethylamine (D)A mixture of Methylamine,

Dimethylamine & Trimethylamine

19 Which one of the following compound gives a secondary amine on reduction?

(A)Nitromethane (B)Nitrobenzene (C)Methyl isocyanide (D)Methyl cyanide

20 Gabriel's phthalimide synthesis is used for the preparation of which amine?

(A)Primary aromatic amine (B)Secondary amine (C)Primary aliphatic amine (D)Tertiary amine

21 What is the characteristic smell of liquid amines?

(A)Fish like smell (B)Rotten egg smell (C)Fruity smell (D)Bitter almond smell

22 What is the correct decreasing order of the basic character of the three amines and ammonia?

(A)NH3 > CH3NH2 > C2H5NH2 > (B)C2H5NH2 > CH3NH2 > NH3 > (C)C6H5NH2 > C2H5NH2 > CH3NH2 > CD)CH3NH2 > C2H5NH2 > C6H5NH2 > C6H5NH

C6H5NH2 C6H5NH2 NH3 NH3

23 The action of nitrous acid on ethyl amine gives which of the following?

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(A)Ethane (B)Ammonia (C)Ethyl alcohol (D)Nitroethane

24 When chloroform reacts with ethyl amine in presence of alcoholic KOH, the compound formed is which of the following?

(A)Ethyl cyanide (B)Ethyl isocyanide (C)Formic acid (D)An amide

25 Identify the product Z in the following reaction.

$$C_6H_5NH_2 \xrightarrow{(AC)_2O} X \xrightarrow{Br_2/CCl_4} Y \xrightarrow{HOH} Z$$

(A)p-Bromoaniline (B)p -Bromoacetophenone (C)o-Bromoacetophenone (D)o-Bromoacetanilide

26  $\alpha$ -bromosuccinic acid is heated with silver oxide in a water to form ....

(A)Malic acid (B)Maleic acid (C)Oxalic acid (D)Tartaric acid

27 Hydroxylation of maleic acid in presence of KMnO4 to gives..

(A)Malic acid (B)Maleic acid (C)Oxalic acid (D)Tartaric acid

28 2-propenoic acid is called as..

(A)Citric acid (B)Oxalic acid (C)Acrylic acid (D)Malic acid

29 The dehydration of alcohols is an example of \_\_\_\_\_

(A)Bimolecular elimination reaction (B)SN2 reaction (C)SN1 reaction (D)Unimolecular elimination reaction

 $30\ Picric\ acid\ is\ formed\ when\ phenol\ react\ with\ which\ of\ the\ following\ reactant?$ 

(A)Formaldehyde (B)Hydrogen (C)Nitric acid (D)Hydrochloric acid