

**ORGANIC CHEMISTRY ONE MARK TEST****50X1=50**

- Number of metamers represented by the molecular formula  $C_4H_{10}O$  is  
(a) 1 (b) 2 (c) 3 (d) 4
- Aldehydes and ketones are distinguished by using  
(a) Tollen's reagent (b) Lucas reagent (c) Borsche reagent (d) all of these
- Ethylisocyanide on hydrolysis in acidic medium generates:  
(a) Ethylamine salt and methanoic acid (b) Propanoic acid and ammonium salt  
(c) Ethanoic acid and ammonium salt (d) Methylamine salt and ethanoic acid
- Which of the following is an amphoteric acid?  
(a) Glycine (b) Salicylic acid (c) Benzoic acid (d) Citric acid
- The repeating units of PTFE are:  
(a)  $F_2C=CF_2$  (b)  $FCIC=CF_2$  (c)  $F_3C-CF_3$  (d)  $Cl_2CH-CH_3$
- Which of the following does not give iodoform test?  
(a)  $CH_3CH_2OH$  (b)  $CH_3CH_2CH_2CH_2OH$  (c)  $(CH_3)_2CHOH$  (d)  $CH_3COCH_3$
- Self condensation of two moles of ethyl acetate in presence of sodium methoxide yields  
(a) ethyl propionate (b) ethyl butyrate  
(c) acetoacetic ester (d) ethyl acetoacetate
- A compound 'A' when treated with  $HNO_3$  (in the presence of  $H_2SO_4$ ) gives compound 'B', which is then reduced with Sn and HCl to aniline? The compound 'A' is:  
(a) Acetamide (b) Ethane (c) Benzene (d) Toluene
- Which one of the following on reduction with mixture of sodium amalgam and water gives an equimolar mixture of sorbitol and mannitol?  
(a) Mannose (b) Glucose (c) Xylose (d) Fructose
- Low density polythene is prepared by:  
(a) Free radical polymerization (b) Cationic polymerization  
(c) Anionic polymerization (d) Ziegler-Natta polymerization
- Victor Meyer test is not given by:  
(a)  $C_2H_5OH$  (b)  $(CH_3)_3COH$  (c)  $CH_3CH_2CH_2OH$  (d)  $(CH_3)_2CHOH$
- Formalin is an aqueous solution of  
(a) fluorescein (b) methanoic acid (c) methanal (d) ethanal
- KCN reacts readily to form cyanide with:  
(a) Chlorobenzene (b) Ethyl alcohol (c) Ethyl bromide (d) Bromobenzene
- Oxidation of fructose with nitric acid gives  
(a) Gluconic acid (b) Oxalic acid (c) Trimethylglutaric acid (d) Tartaric acid
- Which of the following contains isoprene units?  
(a) Natural rubber (b) Nylon-6,6 (c) Polyethylene (d) Dacron
- Organic acid without a carboxylic acid group is:  
(a) Picric acid (b) Oxalic acid (c) Ascorbic acid (d) Vinegar
- Which of the following is incorrect?  
(a)  $FeCl_3$  is used in detection of phenol. (b) Fehling's solution is used in detection of glucose.  
(c) Tollens' reagent is used in detection of unsaturation. (d)  $NaHSO_3$  is used in detection of carbonyl compound
- Which of the following compounds on treatment with  $NaNO_2/HCl$  and then coupled with phenol, produces p-hydroxyazobenzene?  
(a) Phenol (b) Aniline (c) Azobenzene (d) Nitrobenzene
- The conversion of maltose to glucose is possible by the enzyme  
(a) Zymase (b) Lactase (c) Maltase (d) Diastase
- Which of the following polymers does not involve cross linkages?  
(a) Melmac (b) Bakelite (c) Polythene (d) Vulcanized rubber
- Which one of the following sets of reactants is used in Reimer-Tiemann reaction?  
(a)  $C_6H_5OH + CO_2 + KOH$  (b)  $C_6H_5NH_2 + CH_3Cl + KOH$   
(c)  $C_6H_5NH_2 + CHCl_3 + KOH$  (d)  $C_6H_5OH + CHCl_3 + KOH$
- Reduction of aldehydes and ketones into hydrocarbons using zinc amalgam and conc. HCl is called  
(a) Copereduction (b) Dow reduction

- (c) Wolff–Kishner reduction (d) Clemmensen reduction.
23. Which of the following reagent can be used to convert benzenediazonium chloride into benzene?  
(a)  $H_3PO_2$  (b)  $LiAlH_4$  (c)  $Br_2/H_2O$  (d)  $CH_3OH$
24. Fructose is ketose sugar, even then it gives red precipitate with Fehling's solution because  
(a) Ketose sugars undergo transformation into aldose sugars in the presence of Fehling's solution  
(b) Ketones are oxidized by Fehling's solution  
(c) Both (a) and (b) (d) None of these
25. The compound used in the manufacture of terylene is:

- (a) Ethylene (b) Vinyl chloride (c) Ethylene glycol (d) Adipic acid
26. The compound which does not react with sodium is  
 (a)  $\text{CH}_3\text{COOH}$  (b)  $\text{CH}_3\text{CHOHCH}_3$  (c)  $\text{C}_2\text{H}_5\text{OH}$  (d)  $\text{CH}_3\text{OCH}_3$
27. The oxidation of toluene to benzaldehyde by chromyl chloride is called  
 (a) Etard reaction (b) Reimer-Tiemann reaction (c) Wurtz reaction (d) Cannizzaro's reaction
28. Treatment of ammonia with excess of ethyl iodide will yield:  
 (a) Diethylamine (b) Ethylamine  
 (c) Triethylamine (d) Tetraethylammonium iodide
29. Glucose reacts with acetic anhydride to form  
 (a) Hexaacetate (b) Penta acetate (c) Tri acetate (d) Mono acetate
30. Which of the following are Biodegradable polymers?  
 (a) Nylon-2, Nylon-6 (b) PHB (c) PHBV (d) All of these
31. Anisole on cleavage with HI gives  
 (a)  $\text{C}_6\text{H}_5\text{-OH} + \text{CH}_3\text{I}$  (b)  $\text{C}_6\text{H}_5\text{-I} + \text{CH}_3\text{-OH}$   
 (c)  $\text{C}_6\text{H}_5\text{-OH} + \text{C}_2\text{H}_5\text{I}$  (d)  $\text{C}_6\text{H}_5\text{I} + \text{C}_2\text{H}_5\text{OH}$
32. The reaction  $\text{RCH}_2\text{CH}_2\text{COOH} \xrightarrow{\text{Red P, Br}_2} \text{R}-\text{CH}_2-\underset{\text{Br}}{\text{CH}}-\text{COOH}$  is called as  
 (a) Sandmeyer reaction (b) Reimer-Tiemann reaction  
 (c) Hell-Volhard-Zelinsky reaction (d) Cannizzaro reaction
33. Which of the following gives primary amine on reduction?  
 (a)  $\text{CH}_3\text{CH}_2\text{NO}_2$  (b)  $\text{CH}_3\text{CH}_2\text{-O-N=O}$  (c)  $\text{C}_6\text{H}_5\text{N=NC}_6\text{H}_5$  (d)  $\text{CH}_3\text{CH}_2\text{NC}$
34. Carbohydrates are stored in human body as the polysaccharide  
 (a) Glycogen (b) Glucose (c) Starch (d) Galactase
35. Synthetic polymer prepared from caprolactum is known as:  
 (a) Teflon (b) Nylon-6,6 (c) Nylon-6, (d) Terylene
36. What is formed when a primary alcohol undergoes catalytic dehydrogenation?  
 (a) Aldehyde (b) Ketone (c) Alkene (d) Acid
37.  $\text{CH}_3\text{CHCl}_2$ , on hydrolysis will give  
 (a)  $\text{CH}_3\text{CHO}$  (b)  $\text{CH}_3\text{COOH}$  (c)  $\text{CHCl}_3$  (d)  $\text{CH}_3\text{CH}_2\text{OH}$
38. Among the following compounds  $\text{C}_3\text{H}_7\text{NH}_2$ ,  $\text{NH}_3$ ,  $\text{CH}_3\text{NH}_2$ ,  $\text{C}_2\text{H}_5\text{NH}_2$  and  $\text{C}_6\text{H}_5\text{NH}_2$  the least basic compound is:  
 (a)  $\text{C}_6\text{H}_5\text{NH}_2$  (b)  $\text{C}_2\text{H}_5\text{NH}_2$  (c)  $\text{CH}_3\text{NH}_2$  (d)  $\text{NH}_3$
39. Which sugar is present in DNA?  
 (a) Purine only (b) Deoxyribose (c) Ribose (d) Pyrimidine only
40. What % of 'S' is used in the vulcanization of rubber?  
 (a) 5% (b) 25% (c) 30% (d) 55%
41. Consider the following reaction: Phenol  $\xrightarrow{\text{Zn dust}}$  X  $\xrightarrow[\text{Anhyd. AlCl}_3]{\text{CHCl}_3}$  Y  $\xrightarrow{\text{Alkaline KMnO}_4}$  Z; the product Z is  
 (a) benzaldehyde (b) benzoic acid (c) benzene (d) toluene
42. Which of the following react with NaOH to produce an acid and an alcohol?  
 (a)  $\text{CH}_3\text{COOH}$  (b) HCHO (c)  $\text{C}_6\text{H}_5\text{COOH}$  (d)  $\text{CH}_3\text{CH}_2\text{COOH}$
43. Nitrobenzene gives azoxybenzene and hydrazobenzene when reduced:  
 (a) In neutral medium (b) In acidic medium (c) In alkaline medium (d) Electrolytically
44. Protein synthesis occurs in which direction?  
 (a) N to C (b) C to N (c) N to N (d) C to C
45. Which is not a polymer?  
 (a) Sucrose (b) Enzyme (c) Starch (d) Teflon
46. The reaction of  $\text{CH}_3\text{MgBr}$  with acetone and hydrolysis of the resulting product gives  
 (a)  $(\text{CH}_3)_3\text{COH}$  (b)  $(\text{CH}_3)_2\text{CHOH}$  (c)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$  (d)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$
47. Acetaldehyde cannot exhibit  
 (a) Iodoform test (b) Benedict's test (c) Lucas test (d) Tollen's test
48. Which of the following compounds cannot be identified by carbylamine test?  
 (a)  $\text{CHCl}_3$  (b)  $\text{C}_6\text{H}_5\text{-NH-C}_6\text{H}_5$  (c)  $\text{C}_6\text{H}_5\text{NH}_2$  (d)  $\text{CH}_3\text{CH}_2\text{NH}_2$
49. Ring structure of Glucose is due to formation of hemiacetal and ring formation between?  
 (a) C-1 and C-3 (b) C-1 and C-4 (c) C-1 and C-5 (d) C-2 and C-5

50. Synthetic rubber (neoprene) is:

(a) Polyamide

(b) Polyhaloester

(c) Polyhalodiene

(d) Polysaccharide

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