HYDROXY DERIVATIVES

Std. XII
CHEMISTRY

Time: 30 mts
Max.Marks: 25

1. A compound that gives a positive iodoform test is _____
   a 1-pentanol b 2-pentanone c 3-pentanone d pentanal

2. Order of reactivity of alcohol towards sodium metal is _____
   a primary < secondary > tertiary b primary > secondary > tertiary
   c primary < secondary < tertiary d primary > secondary < tertiary

3. Ethyl alcohol cannot be used as a solvent for CH_3MgI because _____
   a CH_3 MgI reacts with alcohol giving methane
   b The reaction between them is explosive in nature
   c $CH_3 M_gI$ is converted to $C_2H_5 M_gI$
   d Alcohol is immiscible with $CH_3 M_gI$

4. Among the following compounds strongest acid is _____
   a $HC \equiv CH$ b C_6H_6 c C_2H_6 d CH_3OH

5. A compound that undergoes bromination easily is _____
   a benzoic acid b benzene c phenol d toluene

6. Ethylene diamine is converted to ethylene glycol using _____
   a Na_2CO_3 solution b Nitrous acid
   c $NaHCO_3$ (aqueous) d Baeyer's reagent

7. Ethylene glycol forms terylene with _____
   a adipic acid b phthalic anhydride c terephthalic acid d oxalic acid

8. Glycerol is used _____
   a as a sweetening agent
   b in the manufacture of good quality soap
   c in the manufacture of nitro glycerine
   d in all the above

9. The number of secondary alcoholic group in glycerol is _____
   a 1 b 2 c 3 d 0

10. The reaction of ethylene glycol with PI_3 gives _____
    a ICH_2CH_2I b $CH_2 = CH_2$ c $CH_2 = CHI$ d $ICH = CHI$

11. Picric acid is
    a 2, 4, 6 trinitro toluene b 2, 4, 6 trinitro aniline
    c 2, 4, 6 tribromo phenol d 2, 4, 6 trinitrophenol

12. Primary, secondary and tertiary alcohols may be distinguished by
    a Fehling solution test b Victor Meyer test
    c Hoffmann test d Iodoform test

13. In the Victor Meyor's test, the characteristic colour given by the secondary alcohol is
    a blue b green c red d purple

14. Ethanol on reaction with Con.H_2SO_4 at 410K gives
a Ethylene b Diethyl ether c Dioxene d None of the above

15. The absence of α hydrogen in tert alcohol, leads to
1. formation of alkene due to dehydrogenation
2. resist the oxidation
3. inactive to nitrous acid in victor mayer test
a all b 1 and 2 c 1 and 3 d 2 and 3

16. An Organic compound *A* reacts with methyl magnesium iodide to form an addition product which on hydrolysis forms the compound *B*. Compound *B* gives blue colour salt in Victor Meyer's test. The compounds *A* and *B* are respectively.
a acetaldehyde, tert, butyl alcohol b acetaldehyde, ethyl alcohol
c acetaldehyde, isopropyl alcohol d acetone, isopropyl alcohol

17. What is *Z* in the following sequence of reactions?

$$Z \xrightarrow{PCl_5} X \xrightarrow{\text{alckOH}} Y \xrightarrow[\text{(ii) } H_2O.]{\text{(i) con} \cdot H_2SO_4} Z.$$

a Ethylene b Ethyl chloride c Ethanol d Diethyl either

18. Dow's reaction involves.
a electrophilic addition b electrophilic substitution
c nucleophilic addition d nucleophilic substitution

19. $RCH = CH_2 \xrightarrow{X} RCH(OH)CH_2OH$. The reagent *X* is _____
a Bayer's reagent b Lucas reagent c Na and alcohol d H_2O/H^+

20. $CH_2(OH) \cdot CH_2OH \xrightarrow[\Delta]{H_3PO_4} \left\{ HOCH_2CH_2 \; O \; HOCH_2CH_2 \right\}$ The reaction is known as _____
a intermolecular dehydration b intra molecular dehydration
c oxidation d electrophilic addition

21. $CH_2OH \xrightarrow{oxdn} 2\,HCOOH + H_2O$. The oxidation agent used in this reaction is _____
CH_2OH
1. acidified $KMnO_4$ 2. Acidified $k_2Cr_2O_7$ 3. periodic acid
a all b 1 only c 3 only d 2 and 3 only

22. Meso oxalic acid is obtained when glycerol is treated with _____
a dil HNO_3 b NaOBr c Bi $(NO_3)_2$ d $H_2O_2 + FeSO_4$

23. phenol can be distinguished from ethyl alcohol by all reagents except _____
a NaOH b $FeCl_3$ c Br_2/H_2O d Na

24. The acidic character of phenol is due to _____
a greater resonance stabilisation of phenoxide ion over phenol
b greater resonance stabilisation of phenol over phenoxide ion
c because of tautomerism occurring in phenol
d because oxygen is more electronegative than hydrogen

25. What is the compound 'C' in the following sequence of reaction?

$$\text{Phenol} \xrightarrow{NaOH} A \xrightarrow[4-7\text{ atm}]{CO_2 \cdot 410\text{ K}} B \xrightarrow{HCl} C.$$

a benzoic acid b salicylic acid
c benzal dehyde d salicylaldehyde