Date Planned : __ / __ / __	Daily Tutorial Sheet-2	Expected Duration : 30 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration :_____

16. Acetone on addition to methyl magnesium bromide forms a complex, which on decomposition with acid gives X and Mg(OH)Br, Which one of the following is X?

(A) CH_3OH **(B)** $(CH_3)_3COH$ **(C)** $(CH_3)_2CHOH$ **(D)** CH_3CH_2OH

17. Match the following Column 1 and Column 2.

Column 1		Column 2	
(A)	Grignard reagent	**1.**	H_2 / Pd - $BaSO_4$
(B)	Clemmensen reduction	**2.**	N_2H_4 | KOH | CH_2-OH | CH_2-OH
(C)	Rosenmund reduction	**3.**	CH_3MgX
(D)	Wolff-Kishner reduction	**4.**	Zn – Hg | conc. HCl
		5.	H_2 | Ni

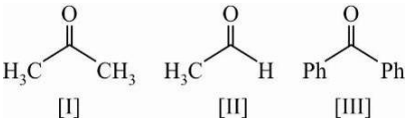
Codes :

	A	B	C	D		A	B	C	D
(A)	3	4	2	1	**(B)**	3	4	1	2
(C)	2	1	4	5	**(D)**	5	3	2	1

18. In the reaction sequence, A $\xrightarrow{CH_3CH_2MgBr}$ B $\xrightarrow{H_3O^{\oplus}}$ $C_5H_{12}O$, compound 'A' is :

(A) 1-propanol **(B)** propanal **(C)** ethanal **(D)** 2-propanol

19. The order or reactivity of phenyl magnesium bromide with the following compound is :



(A) II > III > I **(B)** I > III > II **(C)** II > I > III **(D)** all are equally reactive

20. Which gives lactic acid on hydrolysis after reacting with HCN ?

(A) HCNO **(B)** CH_3CHO **(C)** C_6H_5CHO **(D)** CH_3COCH_3

21. Iodoform can be prepared from all except :

(A) ethyl methyl ketone **(B)** iso-propyl alcohol

(C) 3-methyl-2-butanone **(D)** iso-butyl alcohol

***22.** Select the correct statement(s).

(A) PCC oxidizes 1° alcohol to aldehyde and 2° alcohol to ketone

(B) Cu dehydrates 3° alcohol to alkene

(C) MnO_2 can oxidise allyl alcohol ($CH_2 = CHCH_2OH$)

(D) Oppenauer oxidation method is used to oxidise 1° alcohol to aldehyde

23. $NaAlH_4$ reduces an ester into HCHO and $(CH_3)_2CHOH$. Thus, ester is :

(A) $HCOOCH(CH_3)_2$ **(B)** $(CH_3)_2CHCOOCH_3$

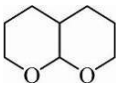
(C) $HCOOCH_2CH_2CH_3$ **(D)** $CH_3CH_2COOCH_3$

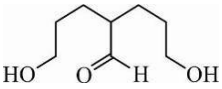
24. An ester having formula $C_4H_8O_2$ on reaction with excess of CH_3MgBr following by acidification produces isopropyl alcohol as sole organic product. The ester is :

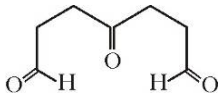
(A) Ethyl acetate **(B)** Isopropyl formate

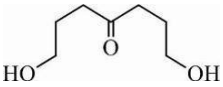
(C) n-propyl formate **(D)** Methyl propanoate

25. Hydrolysis product of A (given below) is :



(A) 

(B) 

(C) 

(D) ring is stable hence, no hydrolysis.

26. The reaction $C_6H_5CH = CHCHO$ with $LiAlH_4$ yields :

(A) $C_6H_5CH_2CH_2CH_2OH$ **(B)** $C_6H_5CH = CHCH_2OH$

(C) $C_6H_5CH_2CH_2CHO$ **(D)** $C_6H_5CH_2CHOHCH_3$

***27.** $C_2H_5O-\overset{\overset{O}{\|}}{C}-OC_2H_5 \xrightarrow{2CH_3MgBr}$ A. Product formed can :

(A) give iodoform test

(B) A gives mesityl oxide when heated with NaOH

(C) be obtained by the ozonolysis of 2, 3-dimethyl-2-butene

(D) Can be prepared by HBO reaction of propyne

28. Trimethylacetaldehyde was subjected to Cannizzaro's reaction by using NaOH. The mixture of the products contains :

I. 2, 2-Dimethyl-1-propanol **III.** 2, 2-Dimethyl-1-propanoate

III. 2, 2-Dimethyl ethanol **IV.** 2, 2-Dimethyl ethanoate ion

The correct option is :

(A) I, IV **(B)** I, II

(C) III, IV **(D)** None of these

29. The compound obtained when acetaldehyde reacts with dilute aqueous sodium hydroxide exhibits :

(A) geometrical isomerism

(B) optical isomerism

(C) neither optical nor geometrical isomerism

(D) both optical and geometrical isomerism

30. $CH_3CHO + HCHO \xrightarrow[\text{Heat}]{\text{Dil. NaOH}}$ A $\xrightarrow[H_3O^+]{HCN}$ B. The structure of compound B is :

(A) $CH_2 = CH - \underset{\underset{OH}{|}}{CH} - COOH$ **(B)** $CH_2 = CH - \underset{\underset{CN}{|}}{CH} - OH$

(C) $CH_3CH_2 - \underset{\underset{OH}{|}}{CH} - COOH$ **(D)** $CH_3 - \underset{\underset{OH}{|}}{CH} - COOH$