Date Planned : __ / __ / __	Daily Tutorial Sheet-4	Expected Duration : 30 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration :_____

46. Which of the following compounds would be the main product of an aldol condensation of acetaldehyde and acetone ?

(A) $CH_3CH = CHCHO$ **(B)** $CH_3CH = CHCOCH_3$

(C) $(CH_3)_2C = CHCHO$ **(D)** $(CH_3)_2C = CHCOCH_3$

47. An organic compound X is oxidised by using acidified $K_2Cr_2O_7$. The product obtained reacts with phenyl hydrazine but does not answer silver mirror test. The possible structure of X is :

(A) CH_3CH_2OH **(B)** $CH_3-\overset{\overset{O}{\|}}{C}-CH_3$ **(C)** $(CH_3)_2CHOH$ **(D)** CH_3CHO

48. $CH_3COOH \xrightarrow{LiAlH_4} X \xrightarrow[300^\circ C]{Cu} Y \xrightarrow[NaOH]{Dilute} Z$. In the above reaction Z is :

(A) butanol **(B)** aldol **(C)** ketol **(D)** acetal

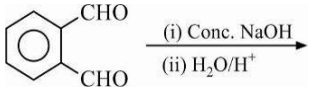
49. An organic compound of molecular formula C_3H_6O did not give a silver mirror with Tollen's reagent, but gave an oxime with hydroxylamine, it may be :

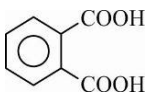
(A) $CH_3-CO-CH_3$ **(B)** C_2H_5CHO

(C) $CH_2 = CH-CH_2-OH$ **(D)** $CH_3-O-CH = CH_2$

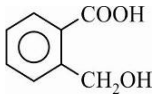
***50.** Which of the following can give Cannizzaro reaction ?

(A) HCHO **(B)** PhCHO **(C)** Me_3C-CHO **(D)** Cl_3C-CHO

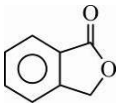
51. 



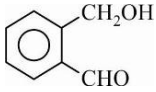
(A)



(B)



(C)



(D)

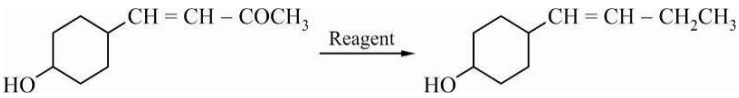
***52.** When formaldehyde is heated with KOH, the products formed include :

(A) Methane **(B)** Methyl alcohol **(C)** Methyl formate **(D)** Potassium formate

53. Which reaction intermediate is formed during the condensation reaction between acetaldehyde and formaldehyde in alkaline medium ?

(A) $\bar{C}H_2CHO$ **(B)** $\overset{+}{C}H_2CHO$ **(C)** $\overset{+}{C}H_2OH$ **(D)** $\bar{C}H_2OH$

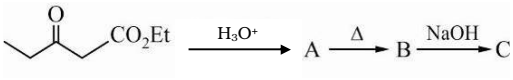
54. In the given reaction, which of the following is most appropriate reagent ?

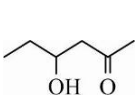


(A) $NH_2NH_2, \bar{O}H/\Delta$ **(B)** $Zn-Hg/HCl$

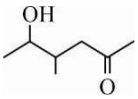
(C) Na, liq NH_3 **(D)** $NaBH_4$

55. In the given sequence, identify compound (C).

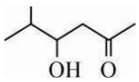




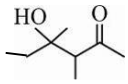
(A)



(B)



(C)



(D)

***56.** The Cannizzaro reaction is not given by :

(A) trimethyl acetaldehyde **(B)** acetaldehyde

(C) benzaldehyde **(D)** chloral

57. When acetaldehyde is heated with Fehling solution, a red precipitate is formed. Which of the following is that ?

(A) Cu_2O **(B)** Cu **(C)** CuO **(D)** $CuSO_4$

58. Compound (A) (molecular formula C_3H_6O) forms a shining silver mirror on warming with ammoniacal silver nitrate. 'A' when treated with an aqueous solution of $H_2NCONHNH_2$ in HCl and sodium acetate gives a product 'B'. Identify the structure of 'B'.

(A) $CH_3CH_2CH = NNHCONH_2$ **(B)** $(CH_3)_2C = NNHCONH_2$

(C) $(CH_3)_2C = NCONHNH_2$ **(D)** $CH_3CH_2CH = NCONHNH_2$

59. The end products in the Cannizzaro reaction of benzaldehyde on acidification are:

(A) $PhCO_2H$, $PhCH_2OH$ **(B)** $PhCO_2H$, $PhCH_2CO_2H$

(C) $PhCH_2OH$, $PhCOCH_3$ **(D)** $PhCO_2H$, $PhCOCH_3$

60. How will you convert acetone to acetic acid ?

(A) Tollen's reagent **(B)** Fehling solution

(C) $NaOH / I_2 / H^+$ **(D)** $NaOH / NaI / H^+$