F.L.T – 02 Answers.

(46) b, initially PH is greater, as the HCl is added PH will decrease when HCl = NaOH that will be the point of neutralization.

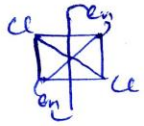
(47) c
(48) c
(49) c
(50) c
(51) d $PH = -\log\left[\frac{400 \times 0.1 \times 2 - 400 \times 0.1}{800}\right]$
(52) Kw is Temp dependent.
$Ka = \frac{c\alpha^2}{1-\alpha}$, $\alpha = .5$
(52) d lowest Ksp means minimum solubility.
(53) a $\Delta H = \Delta U + \Delta nRT$ $\Delta n = n_{g(P)} - n_{g(R)}$
$\Delta H - \Delta U = \Delta nRT$.
$C_7H_{16}(l) + 11O_2 \rightarrow 7CO_2 + 8H_2O(l)$
$\Delta n = 7 - 11 = -4$

(54) (d) $\Delta G = \Delta H - T.\Delta S$ $A = \Delta H$
$\Delta G = A - B.T$ $\Delta H > 0$

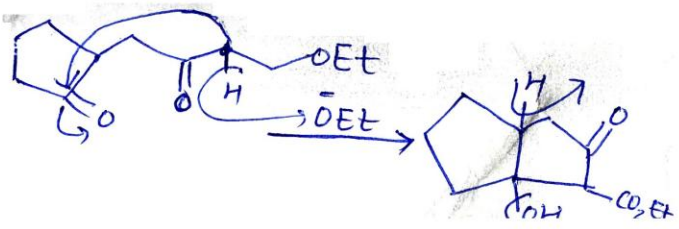
(55) (d) $\Delta G_{rxn} = \Delta G_P - \Delta G_R = 2x\Delta G_{NO_2} - 2x\Delta G_{NO}$
$\Delta G_{rxn} = -2.303RT \log K_p$.

(56) c
(57) a
(58) c $K[A] = -\frac{dA}{dt}$
(59) b
(60) b
(61) b
(62) d (Lanthanoid contraction)

(63) a
(64) b
(65) c
(66) c

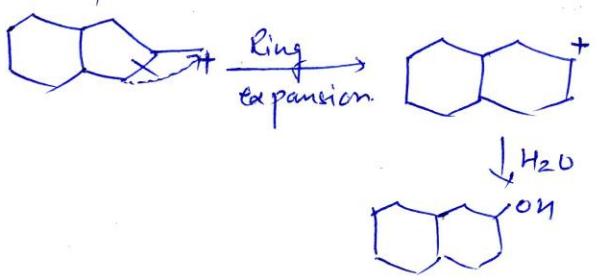


(67) b all are strong ligands except Cl^-
(68) c
(69) b
(70) c
(71) a
(72) c amphoteric white gelatinous
(73) d I st group
(74) b
(75) c Locant rule.
(76) d chiral center
(77) a
(78) a
(79) c
(80) c CH_3CH_2OH, CH_3CH_2Cl, $CH_2=CH_2$
(81) d
(82) d $\bar{O}Et$ is a base.

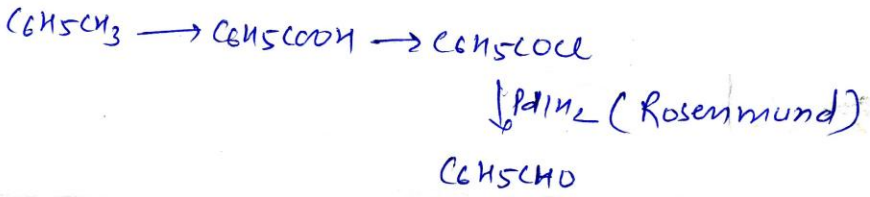


(83) d Carbylamine rxn.

(84) (d)



(85) (d)



(86) d

(87) b

(88) c

(89) c

(90) a