LEADER TEST SERIES / JOINT PACKAGE COURSE

TARGET : PRE-MEDICAL 2020

Test Type : Unit Test   Test # 03   Test Pattern : NEET-UG

TEST DATE : 04 - 08 - 2019

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	1	1	2	4	3	4	4	1	3	2	4	1	3	3	4	1	3	4	3	3
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	4	1	4	3	3	3	2	2	1	1	2	1	3	4	4	2	3	2	4	3
Que.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	1	1	1	2	1	3	2	1	1	2	4	3	3	3	1	2	3	1	3	4
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans.	4	2	3	4	3	1	2	3	4	3	3	2	4	3	1	4	1	4	4	1
Que.	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ans.	3	4	2	2	4	2	2	3	3	1	3	4	4	1	4	1	1	1	3	2
Que.	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	1	2	3	2	1	3	2	3	4	2	1	4	3	3	3	2	1	3	3	3
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Ans.	3	2	1	1	1	3	3	1	1	3	4	4	2	4	3	4	4	2	2	3
Que.	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Ans.	2	3	3	3	2	2	3	4	3	3	2	2	4	3	4	1	4	2	2	2
Que.	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Ans.	3	1	2	3	3	4	2	3	4	3	3	3	4	3	2	3	2	1	3	3

HINT – SHEET

1. $F = at;\ m\dfrac{dv}{dt} = at\ ;\ \int mdv = \int at\,dt$

$$mv = \frac{at^2}{2};\ m\frac{ds}{dt} = \frac{at^2}{2}$$

$$\int mds = \int \frac{at^2}{2}dt$$

$$ms = \frac{at^3}{6} = \frac{a}{6}\left(\frac{F}{a}\right)^3;$$

$$\therefore\ S \propto F^3 \quad \text{or} \quad F \propto S^{1/3}$$

2. Initial energy of capacitor of capacitance 4 μF is

$$U_i = \frac{1}{2}\times(4\times10^{-6})(80)^2 = 0.0128\ \text{J}$$

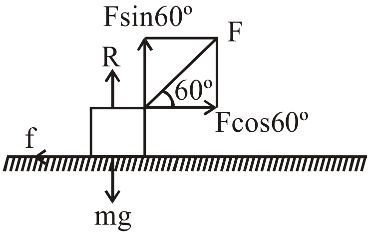
Final potential on 4μF capacitor after connection is

$$V = \frac{4\times80+6\times30}{4+6} = 50\ \text{V.}$$

So final energy on it

$$U_f = \frac{1}{2}\times4\times10^{-6}(50)^2 = 0.005\ \text{J}$$

Energy lost by this capacitor = $U_i - U_f$ = 7.8 mJ

3. 

$R + F \sin 60^\circ = mg$

$R = mg - \dfrac{\sqrt{3}F}{2}$

If block just starts moving

$F \cos 60^\circ = f = \mu R$

or $F + \dfrac{\sqrt{3}F}{2} = 10$ or $F = \dfrac{20}{2+\sqrt{3}}$

4. The relation $\vec{F} = m\vec{a}$, can only be deduced from Newton's second law, if mass remains constant with time. If mass depends on time then this relation cannot be deduced.

5. $V' = \dfrac{V}{8} \Rightarrow \dfrac{V}{K} = \dfrac{V}{8} \Rightarrow K = 8$

6. $F - f = 8 \times 4 = 32$ ...(i)

$2F - f = 128$ ...(ii)

Multiplying (i) by 2, we get

$2F - 2f = 64$ ...(iii)

Also, (ii) – (iii) gives $f = 128 - 64 = 64$ N

$\mu mg = 64$

$\mu \times 8 \times 10 = 64$ or $\mu = \dfrac{64}{80} = \dfrac{8}{10} = 0.8$

7. When $\dfrac{Q_1}{R_1} \neq \dfrac{Q_2}{R_2}$; current will flow in connecting wire so that energy decreases in the form of heat through the connecting wire.

8. Net force on the particle is zero so the $\vec{v}$ remains unchanged.

9. Since aluminium is a metal therefore field inside this will be zero. Hence it would not affect the field in between the two plates, so capacity

$= \dfrac{q}{V} = \dfrac{q}{Ed}$ remains unchanged.

10. As battery is disconnected, Q remains same.

C increases, $C' = \dfrac{\varepsilon_0 KA}{d} = KC$

Potential difference decreases as

$= V' = \dfrac{Q'}{C'} = \dfrac{Q}{KC} = \dfrac{V}{K}$

And potential energy is also reduced as

$U' = \dfrac{1}{2}C'V'^2 = \dfrac{1}{2}KC \times \dfrac{V^2}{K^2} = \dfrac{U}{K}$

11. u = velocity of bullet

$\dfrac{dm}{dt}$ = mass fired per second by the gun

$\dfrac{dm}{dt}$ = mass of bullet (m_B) × Bullets fired per sec (N)

Maximum force that man can exert $F = u\left(\dfrac{dm}{dt}\right)$

$\therefore$ $F = u \times m_B \times N$

$\Rightarrow$ $N = \dfrac{F}{m_B \times u} = \dfrac{144}{40 \times 10^{-3} \times 1200} = 3$

12. $f_{ms} = \mu_s mg = 0.4 \times 3 \times 10N = 12N$

Since the applied force is less than 12N therefore the force of friction is equal to the applied force.

f = 8.7 N

13. Initially charge on the capacitor

Q = 10×12 = 120 μC

Finally charge on the capacitor

Q'=(5×10)×12 = 600 μC

So charge supplied by the battery later

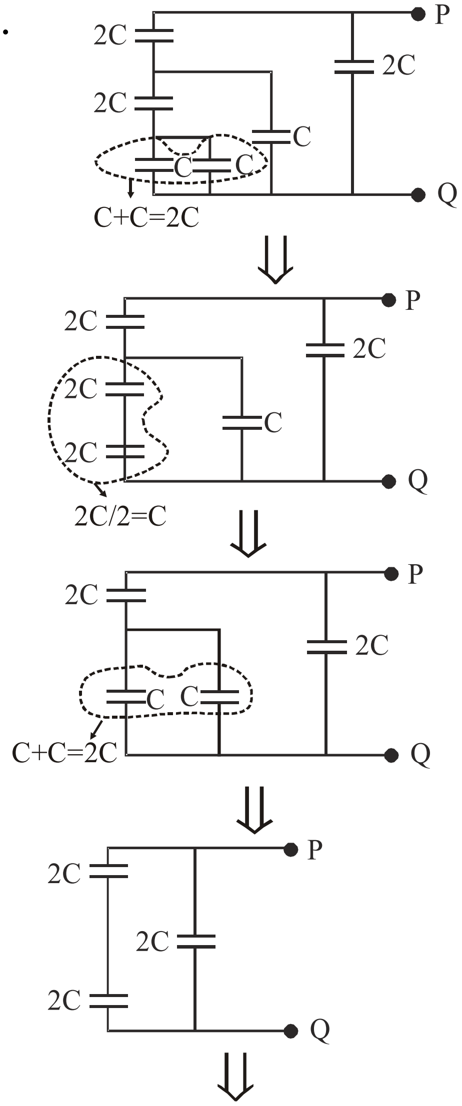
= Q'–Q = 480 μC

14. $C_1 = \dfrac{\varepsilon_0 A}{d}$ and $C_2 = \dfrac{K\varepsilon_0 A}{2d}$

$\Rightarrow \dfrac{C_2}{C_1} = \dfrac{K}{2} \Rightarrow \dfrac{40 \times 10^{-12}}{10 \times 10^{-12}} = \dfrac{K}{2} \Rightarrow K = 8$

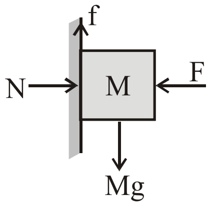
15. Inertia means resistance to change. It is the property of the body by virtue of which it cannot change by itself its state of rest or of uniform motion.

16.



$C_{PQ} = 3C$

17.



$f = Mg$, $f_l = \mu F$

$f < f_l$

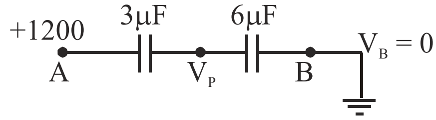
$Mg < \mu F \Rightarrow F > \frac{Mg}{\mu} > Mg$

18. $\Delta U = U_2 - U_1 = \frac{V^2}{2}(C_2 - C_1)$

$= \frac{(100)^2}{2}(10-2)\times10^{-6} = 4\times10^{-2}J$

19. Newton's first law defines force. Newton's second law gives us a measure of force. Impulse gives us the effect of force. Recoiling of gun is accounted for by Newton's 3rd law.

20. Given circuit can be reduced as follows



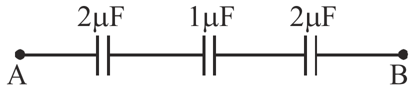
In series combination charge on each capacitor remains same. So using Q = CV

$\Rightarrow C_1V_1 = C_2V_2 \Rightarrow 3(1200-V_P) = 6(V_P-V_B)$

$\Rightarrow 1200-V_P = 2V_P \quad (\because V_B = 0)$

$\Rightarrow 3V_P = 1200 \Rightarrow V_P = 400$ volt

21.



$$\frac{1}{C} = \frac{1}{2} + \frac{1}{1} + \frac{1}{2} = \frac{1+2+1}{2} = \frac{4}{2} = 2$$

$\Rightarrow C_{AB} = 0.5\mu F$

22. For t < 0 and t > 4s, the position of the particle is not changing i.e., the particle is at rest. So no force is acting on the particle at these intervals.

For 0 < t < 4s, the position of the particle is continuously changing. As the position-time graph is a straight line, the motion of the particle is uniform, so acceleration, a = 0. Hence no force acts on the particle during this interval also.

23. The capacitance across A and B

$$= \frac{C_1}{2} + C_1 + C_1 = \frac{5}{2}C_1$$

As Q = CV, $1.5\mu C = \frac{5}{2}C_1 \times 6$

$\Rightarrow C_1 = \frac{1.5}{15}\times10^{-6} = 0.1\times10^{-6}F = 0.1\ \mu F$

24. Acceleration of mass at distance x,

$a = g(\sin\theta - \mu_0 x \cos\theta)$

Speed is maximum, when a = 0

$\Rightarrow g(\sin\theta - \mu_0 x \cos\theta) = 0$

$\therefore x = \frac{\tan\theta}{\mu_0}$

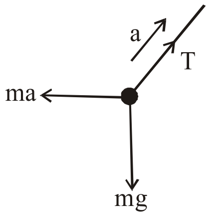
25. Common potential

$$V = \frac{6\times20+3\times0}{(6+3)} = \frac{120}{9}\text{volt}$$

So, charge on 3 μF capacitor

$$Q_2 = 3\times10^{-6}\times\frac{120}{9} = 40\ \mu C$$

26. FBD in the trolley



So $T - m\sqrt{g^2 + a^2} = ma$

$T = m\sqrt{g^2 + a^2} + ma$

27. $V = \dfrac{C_1V_1 - C_2V_2}{C_1 + C_2} = \dfrac{6 \times 12 - 3 \times 12}{3 + 6} = 4\,\text{volt}$

28. There are two capacitors parallel to each other.

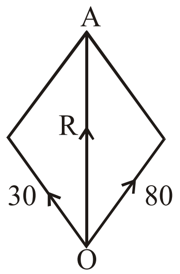
$\therefore$ Total capacitance $= \dfrac{2\varepsilon_0 A}{d}$

$\therefore$ Energy stored $= \dfrac{1}{2}\left(\dfrac{2\varepsilon_0 A}{d}\right)V^2$

$= \dfrac{8.86 \times 10^{-12} \times 50 \times 10^{-4} \times 12^2}{3 \times 10^{-3}} = 2.1 \times 10^{-9}\,\text{J}$

29. Figure shows that slope of x-t graph changes from positive to negative at t = 2s, and it changes from negative to positive at t = 4s and so on. Thus direction of velocity is reversed after every two seconds. Hence, the body must be receiving consecutive impulses after every two seconds.

30.



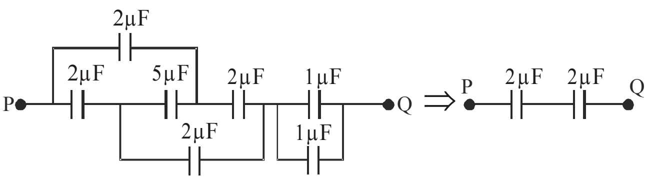
Frictional force along the upward direction

= 10 g sin θ – 30 = 30 N

N = 10 g cos θ = 80 N

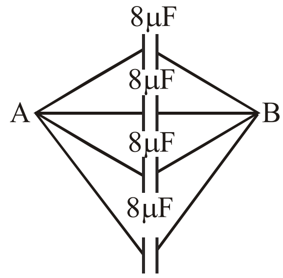
Direction of R is along OA

31.



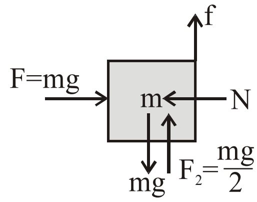
$\Rightarrow C_{PQ} = 1\mu F$

32. Given circuit can be drawn as



Equivalent capacitance = 4×8 = 32 μF.

33.



Here net driving force

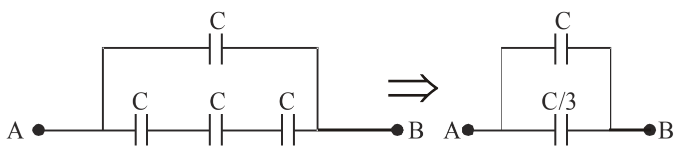
$= mg - \dfrac{mg}{2} = \dfrac{mg}{2}$ downward

Hence friction will act upward and its magnitude should be $f = \dfrac{mg}{2}$. If the block 'm' is stationary the friction between m and the wall should be static.

$f \le f_{lim}$

$\dfrac{mg}{2} \le \mu\,.\,N \Rightarrow \dfrac{mg}{2} \le \mu(mg) \quad \Rightarrow \mu = \dfrac{1}{2}$

34.



$\Rightarrow C_{eq} = \dfrac{C}{3} + C = \dfrac{4C}{3}$

35. Pseudo force on the block

= m × 4 N (backward)

Force of friction = 0.4 × m × 10N (forward)

Equating, m × 4 = 0.4 × m × 10

or 4m = 4m

Clearly the equation holds good for all values of m.

36. $a = \dfrac{F}{m + 2m + 4m} = \dfrac{F}{7m}$

Let normal force between A and B is N_1, then

$N_1 = (2m + 4m)a = \dfrac{6F}{7}$

and between B and C is N_2, then

$N_2 = 4ma = \dfrac{4F}{7}$

37. $\frac{1}{C_{eq}} = \frac{1}{1} + \frac{1}{2} + \frac{1}{8} \Rightarrow C_{eq} = \frac{8}{13}\mu F$

Total charge $Q = C_{eq}V = \frac{8}{13} \times 13 = 8\mu C$

Potential difference across $2\mu F$ capacitor

$= \frac{8}{2} = 4V$

38. Velocity between t = 0 and t = 2 s

$\Rightarrow\ v_1 = \frac{dx}{dt} = \frac{4}{2} = 2m/s$

Velocity at t = 2s, $v_f = 0$

Impulse = Change in momentum = $m(v_f - v_t)$

$0.1\ (0 - 2) = -0.2\ kg\ ms^{-1}$

39. $C_1 + C_2 + C_3 = 12$ ....(i)

$C_1C_2C_3 = 48$ ....(ii)

$C_1 + C_2 = 6$ ....(iii)

From equations (i) and (iii)

$C_3 = 6$ ....(iv)

From equations (ii) and (iv) $C_1C_2 = 8$

Also $(C_1 - C_2)^2 = (C_1 + C_2)^2 - 4C_1C_2$

$(C_1 - C_2)^2 = (6)^2 - 4\times 8 = 4$

$\Rightarrow C_1 - C_2 = 2$ ....(v)

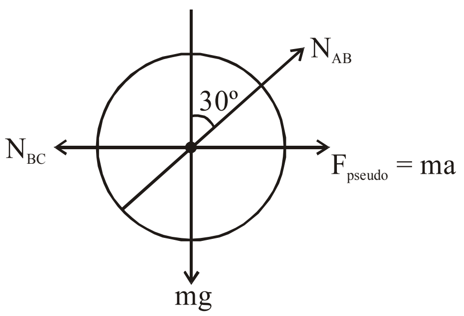
On solving (iii) and (v) $C_1 = 4$, $C_2 = 2$

40. The free body diagram of cylinder w.r.t.carriage is as shown.

Since net acceleration of cylinder is horizontal,

$N_{AB}\cos 30^\circ = mg$

or $N_{AB} = \frac{2}{\sqrt{3}}mg$ ...(1)

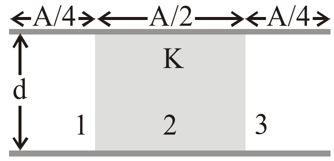


F.B.D. of cylinder w.r.t. to carriage

and $N_{BC} = ma + N_{AB}\sin 30^\circ$ ...(2)

Hence N_{AB} remains constant and N_{BC} increases with increase in a.

41. $C_1 = \frac{\varepsilon_0\left(\frac{A}{4}\right)}{d}, C_2 = \frac{K\varepsilon_0\left(\frac{A}{2}\right)}{d}, C_3 = \frac{\varepsilon_0\left(\frac{A}{4}\right)}{d}$



$C_{eq} = C_1 + C_2 + C_3 = \left(\frac{K+1}{2}\right)\frac{\varepsilon_0 A}{d}$

$= \left(\frac{4+1}{2}\right)\times 10 = 25\mu F$

42. In this case driving force = ma

= 2 × 1 = 2N

And resting force = $f_{lim} = \mu N = 4N$

Hence the mass will not slide over the plank friction should be static nature f = 2N

43. Let $E = \frac{1}{2}C_0V_0^2$ then $E_1 = 2E$ and $E_2 = \frac{E}{2}$

So $\frac{E_1}{E_2} = \frac{4}{1}$

44. $P = f_{ms} = \mu_s mg$

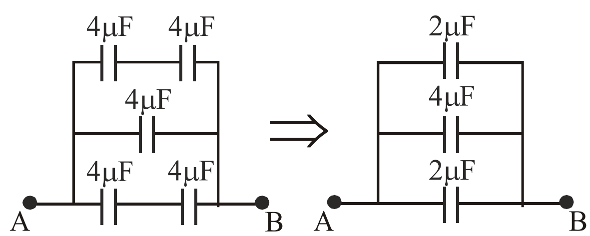
When the body starts moving with acceleration a, then $P - f_{ms} = ma$

$\mu_s\ mg - \mu_k\ mg = ma$

$\Rightarrow\ a = (\mu_s - \mu_k)\ g = (0.5 - 0.4)\ 10$

$= 1\ ms^{-2}$

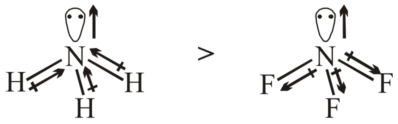
45.



$\Rightarrow C_{AB} = 8\ \mu F$

46. For M.P. and B.P. of ionic compound ∝ lattice energy

47. Dipole moment of $NH_3 > NF_3$



Additive Substractive

Bond angle of $NH_3 > NF_3$
if hybridisation, number of lone pair and central atom is same.

Bond angle $\propto \dfrac{1}{\text{EN of side atom}}$

48. Thermal stability of oxy salt $\propto \dfrac{1}{\text{Polarisation}}$

49. $NO^+ > NO_2 > NO_3^- > NO_2^-$

NO^+	NO_2	NO_3^-	NO_2^-
↓	↓	↓	↓
sp	sp^2	sp^2	sp^2 (1 ℓp)
↓	↓	↓	↓
180°	134°	120°	115°

50. $BeF_2 + 2F^- \longrightarrow BeF_4^{-2}$

BeF_2	BeF_4^{-2}
↓	↓
sp	sp^3
↓	↓
180°	109°28'
↓	↓
50% s-ch	25% s-ch

Bond length $\propto \dfrac{1}{\%\ \text{s} - \text{character}}$

51. Inert gas have induced dipole-induced dipole weak intermolecular force.

52. Bond angle $\propto \dfrac{1}{\text{no. of L.P.}}$ If hybridisation is same $\ddot{N}H_3 > H_2\ddot{O}$

53. O_2 and B_2 both have 2 unpaired electron according to MOT but B.order of O_2 = 2 & B_2 = 1

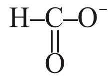
54. Due to presence of lone pair or single electron.

55. Bond energy = 1s-1s > 2p-2p

$$\propto \frac{1}{\text{no. of lone pair}}$$

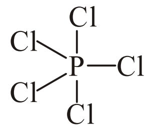
56. Stability $\propto$ Bond energy $\propto$ Extent of overlapping
(1s-2p > 1s-3p > 1s-4p > 1s-5p)

57. BCl_3 – 3e + 3e = $6e^-$ Electron deficient

58. 

Formal charge $= \dfrac{\text{charge}}{\text{no. of 'O' atom}} = \dfrac{-1}{2} = -0.5$

Bond order = 2 – |F.C.| = 2 – 0.5 = 1.5

59. 

Hybridisation = sp^3d
3 Bond angle of 120° & 6 bond angle of 90°
Axial bond length > equatorial bond length

60.
(a) Covalent compound - no ions is present

(b) Mobility of ion in water $\propto \dfrac{1}{\text{hydrated radius}}$

(c) Volatility $\propto \dfrac{1}{\text{Boiling point}} \propto \dfrac{1}{\%\ \text{Ionic en.}} \propto$ Polarisation

61. SiO_2 due to 3 dimensional giant network solid
CaO Ionic compound CCl_4 covalent molecule
Bronze metallic

62. Stability $\propto$ bond order and if bond order is same then stability $\propto \dfrac{1}{\text{no. of antibonding electron}}$

63. Due to lone pair, distortion takes place.

64. Most strong attraction force among these is ion-dipole interaction.

65. Solid NaCl have crystalline structure in which cation and anion are strongly attracted to each other.

66. (II) < (III) < (IV) < (I) < (V)

(II)	(III)	(IV)	(I)	(V)
↓	↓	↓	↓	↓
XeF_4	I_3^-	NCl_3	CO_3^{-2}	$BeCl_2$
↓	↓	↓	↓	↓
sp^3d^2	sp^3d	sp^3	sp^2	sp

67. Due to absence of H-bonding

69. Highest ionization of difluoro acetic acid leads to maximum electrical conductivity.

70. $\lambda^{\infty}_{m(BaSO_4)} = \lambda^{\infty}_{m(BaCl_2)} + \lambda^{\infty}_{m(H_2SO_4)} - 2\lambda^{\infty}_{m(HCl)}$

$\therefore\ \lambda^{\infty}_{m(BaSO_4)} = x_1 + x_2 - 2x_3$

71. $E_{H^+/H_2} = E^o_{H^+/H_2} - \dfrac{0.0591}{2}\log\dfrac{P_{H_2}}{[H^+]^2}$

$\therefore\ E_{H^+/H_2} = 0 - \dfrac{0.0591}{2}\log\dfrac{1}{\left(10^{-10}\right)^2}$

$= -\dfrac{0.0591}{2}\log 10^{20} = -0.591\,V$

72. $\overset{+7}{MnO_4^-} + 3e^- \longrightarrow \overset{+4}{MnO_2}$

(3mol = 3F)

74. One Faraday charge will deposit one equivalent of metal at electrodes. The mole ratio for Ag, Cu and Al will be 1 : $\dfrac{1}{2}$: $\dfrac{1}{3}$

75. Weight of silver W = $\dfrac{E}{F}it$

$= \dfrac{108}{96500}\times 1\times 100$

= 0.11 g

76. For concentration cells E^o_{cell} and ΔG^o_{cell} are zero and for such cells with equal concentrations of electrolyte solution E_{cell} is also zero.

77. $E^o_{cell} = \dfrac{0.0591}{n}\log K_C$

$= \dfrac{0.0591}{2}\log 10^6$

= 0.0591 × 3 = 0.177 V

78. Cu can displace Hg^{+2} ion from its solution but can not displace Zn^{+2}, K^+, Mg^{+2} ions from their solutions.

79. 0.1 mole Cl_2 gas = 7.1 g Cl_2 gas

$\because\ W = \dfrac{Eit}{F}$

$\therefore\ t = \dfrac{7.1\times 96500}{35.5\times 2} = 9650$ second

80. $\lambda_{eq} = \dfrac{\kappa\times 1000}{C} = \dfrac{G^*\times 1000}{R\times C}$

$\therefore\ \lambda_{eq} = \dfrac{2\times 1000}{200\times 0.1} = 100\ S\,cm^2\ eq^{-1}$

81. $\lambda_{eq} = \dfrac{\lambda_m}{V.F.}$ [V.F. = valency factor]

$\therefore\ \lambda_{eq} = \dfrac{150}{3}$ = 50 S cm^2 eq^{-1}

82. $E_{cell} = E^o_{cell} - \dfrac{0.0591}{1}\log\dfrac{[Fe^{+3}]}{[Ag^+][Fe^{+2}]}$

E_{cell} can be decreased by decreasing $[Ag^+]$ and by increasing $[Fe^{+3}]$ concentration.

83. $\underset{P_1}{H_{2(g)}} + 2H^+ \longrightarrow \underset{P_2}{H_{2(g)}} + 2H^+$

For concentration cell $E^o_{cell} = 0$

$\therefore\ E_{cell} = 0 - \dfrac{2.303\ RT}{nF}\log_{10} Q$

$= -\dfrac{RT}{2F}\ln\dfrac{P_2}{P_1} = \dfrac{RT}{2F}\ln\dfrac{P_1}{P_2}$

84. For given cell

Anode reaction :

$Ag_{(s)} + Cl^-_{(aq)} \longrightarrow AgCl_{(s)} + e^-$

Cathode reaction

$Br_{2(\ell)} + 2e^- \longrightarrow 2Br^-_{(aq)}$

85. Q = i × t = 0.01 × 10^{-3} × 1000 × 3600

= 36 coulomb

87. Degree of dissociation (α) = $\dfrac{\lambda_m}{\lambda_m^\infty}$

$\therefore\ \alpha = \dfrac{12.8}{42+288.42}\times 100 = 3.99\%$

88. $Fe^{+3} + 3e^- \longrightarrow Fe$; E^o = –0.036 V

$Fe^{+2} + 2e^- \longrightarrow Fe$; E^o = –0.439 V

On substituting equation (2) from (1)

$Fe^{+3} + e^- \longrightarrow Fe^{+2}$; E^o = ?

$\therefore \quad E_3^o = 3(-0.036) - 2(-0.439)$

$= 0.878 - 0.108 = 0.77$ V

89. $E^o_{cell} = (E^0_{SRP})_c - (E^0_{SRP})_a$

$= 1.50 - (-0.25) = 1.75$ V

$$E_{Cell} = 1.75 - \frac{0.059}{6}\log\frac{(1)^3}{(1)^2}$$

$= 1.75$ V

90. One Faraday electricity deposits one equivalent of substance at electrodes.

91. NCERT (XI^{th}) Pg. # 53
92. NCERT (XI^{th}) Pg. # 51
93. NCERT (XI^{th}) Pg. # 49
94. NCERT (XI^{th}) Pg. # 56
95. NCERT (XI^{th}) Pg. # 102, 103
96. NCERT (XI^{th}) Pg. # 56, 57, 53, 50
97. NCERT (XI^{th}) Pg. # 113
99. NCERT (XI^{th}) Pg. # 112
101. NCERT (XI^{th}) Pg. # 112
102. NCERT (XI^{th}) Pg. # 115
103. NCERT (XI^{th}) Pg. # 57, 55, 58, 59
104. NCERT (XI^{th}) Pg. # 57
105. NCERT (XI^{th}) Pg. # 58
106. NCERT (XI^{th}) Pg. # 57
107. NCERT (XI^{th}) Pg. # 56
108. NCERT (XI^{th}) Pg. # 57
109. NCERT (XI^{th}) Pg. # 56
110. NCERT (XI^{th}) Pg. # 112
111. NCERT (XI^{th}) Pg. # 114
113. NCERT (XI^{th}) Pg. # 113
114. NCERT (XI^{th}) Pg. # 103
116. NCERT (XI^{th}) Pg. # 103
117. NCERT (XI^{th}) Pg. # 103
118. NCERT (XI^{th}) Pg. # 101
122. NCERT (XI^{th}) Pg. # 103
123. NCERT (XI^{th}) Pg. # 103
124. NCERT (XI^{th}) Pg. # 115
125. NCERT (XI^{th}) Pg. # 60
126. NCERT (XI^{th}) Pg. # 55,56
127. NCERT (XI^{th}) Pg. # 51, 52
129. NCERT (XI^{th}) Pg. # 50
130. NCERT (XI^{th}) Pg. # 53
131. NCERT (XI^{th}) Pg. # 49, 52, 53, 54
132. NCERT (XI^{th}) Pg. # 22
133. NCERT (XI^{th}) Pg. # 51
134. NCERT (XI^{th}) Pg. # 52
135. NCERT (XI^{th}) Pg. # 53
136. NCERT (XI^{th}) Pg. # 54
137. NCERT (XI^{th}) Pg. # 52
138. NCERT (XI^{th}) Pg. # 48
139. NCERT (XI^{th}) Pg. # 101
140. NCERT (XI^{th}) Pg. # 56, 57
141. NCERT (XI^{th}) Pg. # 48
142. NCERT (XI^{th}) Pg. # 50
143. NCERT (XI^{th}) Pg. # 50
144. NCERT (XI^{th}) Pg. # 51
145. NCERT (XI^{th}) Pg. # 53
146. NCERT (XI^{th}) Pg. # 53
147. NCERT (XI^{th}) Pg. # 53
148. NCERT (XI^{th}) Pg. # 47
149. NCERT (XI^{th}) Pg. # 53
150. NCERT (XI^{th}) Pg. # 52, 53
151. NCERT (XI^{th}) Pg. # 22
152. NCERT (XI^{th}) Pg. # 59, 60
153. NCERT (XI^{th}) Pg. # 53, 54
155. NCERT (XI^{th}) Pg. # 46
156. NCERT (XI^{th}) Pg. # 48
157. NCERT (XI^{th}) Pg. # 49
158. NCERT (XI^{th}) Pg. # 52
160. NCERT (XI^{th}) Pg. # 51
161. NCERT (XI^{th}) Pg. # 54
163. NCERT (XI^{th}) Pg. # 57
164. NCERT (XI^{th}) Pg. # 59
165. NCERT (XI^{th}) Pg. # 49
166. NCERT (XI^{th}) Pg. # 52
169. NCERT (XI^{th}) Pg. # 58
170. NCERT (XI^{th}) Pg. # 55
171. NCERT (XI^{th}) Pg. # 57
172. NCERT (XI^{th}) Pg. # 58
173. NCERT (XI^{th}) Pg. # 59
174. NCERT (XI^{th}) Pg. # 59
175. NCERT (XI^{th}) Pg. # 59
177. NCERT (XI^{th}) Pg. # 52
178. NCERT (XI^{th}) Pg. # 51
179. NCERT (XI^{th}) Pg. # 51
180. NCERT (XI^{th}) Pg. # 53