

**ENTHUSIAST, LEADER & ACHIEVER COURSE**

**PHASE : ALL PHASE (SET - P1)**

**TARGET : PRE-MEDICAL 2024**

**Test Type : MAJOR (AIOT)**

**Test Pattern : NEET (UG)**

**TEST DATE : 21-04-2024**

**ANSWER KEY**

Q.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A.	1	2	4	1	1	3	4	2	2	3	4	3	2	4	4	3	1	2	4	3	3	1	1	1	2	2	3	4	1	2
Q.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A.	3	2	3	1	4	1	2	3	3	4	2	4	3	4	1	1	1	2	1	2	4	3	2	1	1	1	1	1	2	4
Q.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
A.	4	2	4	2	1	3	2	1	1	2	1	2	1	3	3	3	3	4	4	2	3	4	4	4	2	3	3	2	1	3
Q.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
A.	4	2	2	4	3	3	1	3	3	1	2	2	4	4	2	1	1	4	1	4	4	3	3	4	2	2	2	4	3	4
Q.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
A.	3	3	2	4	2	3	1	2	3	3	3	1	4	4	4	4	2	3	3	3	4	2	1	3	2	2	3	2	2	3
Q.	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
A.	2	3	4	3	4	3	4	4	3	2	4	2	3	4	1	1	2	2	2	3	1	3	1	4	3	4	3	3	4	1
Q.	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200										
A.	1	4	1	3	4	2	3	3	3	2	1	3	3	4	2	1	2	3	1	1										

**HINT - SHEET**

**SUBJECT : PHYSICS**

**SECTION - A**

2. **Ans ( 2 )**

$$x = \frac{n\lambda D}{d} \Rightarrow 3 \times 10^{-3} = \frac{2 \times \lambda \times 1}{0.2 \times 10^{-3}}$$

$$\lambda = 3 \times 10^{-7} \text{ m} = 3000 \text{ \AA}$$

3. **Ans ( 4 )**

NCERT-XII Pg#274

EMW has variable E & B

4. **Ans ( 1 )**

$$\frac{Q_2}{W} = \beta \Rightarrow W = \frac{Q_2}{\beta}$$

$$\Rightarrow W = \frac{2000 \times 4.2 \text{ J}}{4}$$

$$= 2100 \text{ J}$$

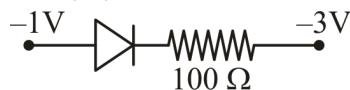
5. **Ans ( 1 )**

$$n_C = 2n_O$$

$$\frac{V}{4\ell_C} = 2 \frac{V}{2\ell}$$

$$\ell_C = \frac{\ell}{4} = \frac{60}{4} = 15 \text{ cm}$$

6. **Ans ( 3 )**



PN - Junction is forward bias

$$I = \frac{\Delta V}{R} = \frac{(-1) - (-3)}{100}$$

$$= \frac{2}{100}$$

$$I = 20 \text{ mA}$$

7. **Ans ( 4 )**

$$\frac{T_A}{T_B} = \frac{\lambda_B}{\lambda_A} = \frac{1500}{500} = 3$$

$$\frac{P_A}{P_B} = \frac{r_A^2}{r_B^2} \left( \frac{T_A}{T_B} \right)^4 = 9$$

8. **Ans ( 2 )**

$$\Delta t = \frac{1}{2} \alpha \Delta \theta \times t$$

$$\text{or } 5 = \frac{1}{2} \alpha (\theta - 15) \times 86400$$

$$\text{and } -10 = \frac{1}{2} \alpha (\theta - 30) \times 86400$$

$$\text{Solving we get; } \frac{\theta - 30}{\theta - 15} = -2$$

$$\theta - 30 = -2\theta + 30$$

$$3\theta = 60 \quad \text{or} \quad \theta = 20^\circ\text{C}$$

9. **Ans ( 2 )**

$$\lambda_{\text{photon}} = \frac{hc}{E} \text{ and } \lambda_{\text{electron}} = \frac{h}{\sqrt{2mE}}$$

$$\Rightarrow \frac{\lambda_{\text{photon}}}{\lambda_{\text{electron}}} = c \sqrt{\frac{2m}{E}} \Rightarrow \frac{\lambda_{\text{photon}}}{\lambda_{\text{electron}}} \propto \frac{1}{\sqrt{E}}$$

10. **Ans ( 3 )**

$$\mu = \frac{\sin\left(\frac{\delta_{\min} + A}{2}\right)}{\sin\left(\frac{A}{2}\right)} = \frac{\sin\left(\frac{30^\circ + 60^\circ}{2}\right)}{\sin\left(\frac{60^\circ}{2}\right)} = \frac{\sin 45^\circ}{\sin 30^\circ}$$

$$\mu = \frac{\frac{1}{\sqrt{2}}}{\frac{1}{2}} = \sqrt{2}$$

11. **Ans ( 4 )**

By using

$$B = \frac{\mu_0 i}{2\pi r} \left( \frac{r^2 - a^2}{b^2 - a^2} \right), \text{ here } r = \frac{3R}{2},$$

$$a = R, b = 2R,$$

$$B = \frac{\mu_0 i}{2\pi \left(\frac{3R}{2}\right)} \times \left\{ \frac{\left(\frac{3R}{2}\right)^2 - R^2}{(2R)^2 - R^2} \right\}$$

$$= \frac{5\mu_0 i}{36\pi R}$$

12. **Ans ( 3 )**

$$\frac{hc}{\lambda} = \phi_0 + 5eV_0 \quad \dots(1)$$

$$\frac{hc}{4\lambda} = \phi_0 + eV_0 \quad \dots(2)$$

From (1) & (2)

$$\frac{hc}{4\lambda} = 4\phi_0 = \frac{4hc}{\lambda_0}$$

$$\lambda_0 = 16\lambda$$

14. **Ans ( 4 )**

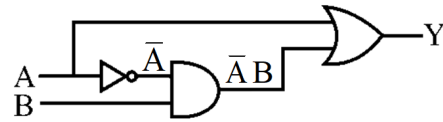
$$\frac{1}{f_0} = \frac{1}{v_0} - \frac{1}{u_0}$$

$$\frac{1}{20} = \frac{1}{v_0} - \frac{1}{-100}$$

$$v_0 = 25 \text{ cm}$$

$$L = v_0 + f_e = 25 + 2 = 27 \text{ cm}$$

15. **Ans ( 4 )**



$$Y = A + \bar{A}B = (A + \bar{A}) \cdot (A + B)$$

$$= 1 \cdot (A + B)$$

$$Y = A + B = \text{OR gate}$$

16. **Ans ( 3 )**

$$\frac{1}{2} \left( \frac{1}{2} mv^2 \right) = m_i L_f$$

$$\text{where } m = 10 \text{ g} = 10 \times 10^{-3} \text{ kg}$$

$$m_i \text{ will be in gm, } L_f = 336 \text{ J/g}$$

$$m_i = \frac{1}{4} \times \frac{10 \times 10^{-3} \times (20)^2}{336} = 0.003 \text{ g}$$

17. **Ans ( 1 )**

Momentum of the recoiled hydrogen atom

= momentum of the emitted photon

$$= \frac{h\nu}{c} = \frac{h}{\lambda} = hR \left( \frac{1}{n_i^2} - \frac{1}{n_f^2} \right)$$

$$= 6.6 \times 10^{-34} \times 1.09 \times 10^7 \left( \frac{1}{1} - \frac{1}{16} \right)$$

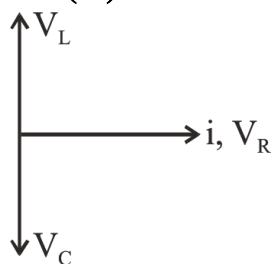
$$= 6.8 \times 10^{-27} \text{ kg}\cdot\text{ms}^{-1}$$

18. **Ans ( 2 )**

$$\therefore |\varepsilon| = L \frac{dI}{dt}$$

$$8 = L \cdot \frac{(4-2)}{0.05} \Rightarrow \boxed{L = 0.2\text{H}}$$

19. Ans (4)



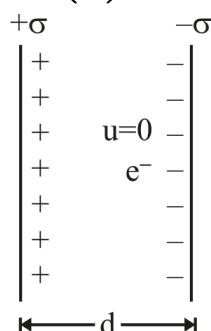
20. Ans (3)

$$v_s = \sqrt{\frac{\gamma RT}{M_w}}$$

$$v_{\text{H}_2} = \sqrt{\frac{7}{5} \left( \frac{RT}{2} \right)}$$

$$v_{\text{He}} = \sqrt{\frac{5}{3} \left( \frac{RT}{4} \right)}$$

21. Ans (3)



acceleration of  $e^-$ ,  $a = \frac{qE}{m}$

$$\Rightarrow a = \frac{e}{m} \left( \frac{\sigma}{\epsilon_0} \right)$$

$$\text{so } d = \frac{1}{2} at^2$$

$$d = \frac{1}{2} \left( \frac{e\sigma}{m\epsilon_0} \right) t^2$$

$$\Rightarrow \sigma = \frac{2dm\epsilon_0}{et^2}$$

24. Ans (1)

$$D = 80, x = 20$$

$$f = \frac{D^2 - x^2}{4D} = \frac{80^2 - 20^2}{320} = 18.75 \text{ cm}$$

25. Ans (2)

$$\Delta R = \frac{\Delta V}{\Delta I} = \frac{1.2 - 1}{(15 - 10) \times 10^{-3}}$$

$$= \frac{0.2 \times 1000}{5} = \frac{200}{5} = 40\Omega$$

26. Ans (2)

$$I_g = -\frac{GM}{R^2}, v = -\frac{GM}{R}$$

$$V = I_g R = 6 \times 8 \times 10^6 = 4.8 \times 10^7$$

27. Ans (3)

$$mg \ell_2 = 16 g \ell_1 \dots (i)$$

$$mg \ell_1 = 4g \ell_2 \dots (ii)$$

$$\Rightarrow \frac{16}{m} = \frac{m}{4} \Rightarrow m = 8 \text{ kg}$$

28. Ans (4)

no rolling on smooth incline, so all will take equal time.

29. Ans (1)

$$\text{Distance } s = 2(2\pi r) = 80m$$

$$\text{by } v^2 = 4^2 + 2a_T s$$

$$a_T = \frac{v^2 - 4^2}{2s} = \frac{(80)^2 - 0}{2(80)}$$

$$\boxed{a_T = 40m/s^2}$$

30. Ans (2)

$$\vec{r} = (a \cos \omega t) \hat{i} + (a \sin \omega t) \hat{j}$$

$$\vec{v} = \frac{d\vec{r}}{dt} = (-a\omega \sin \omega t) \hat{i} + (a\omega \cos \omega t) \hat{j}$$

$$\vec{v} \cdot \vec{r} = -a^2 \omega \sin \omega t \cos \omega t + a^2 \omega \sin \omega t \cos \omega t = 0$$

i.e.,  $\vec{v}$  is  $\perp$  to  $\vec{r}$ .

31. Ans (3)

At lowest position

$$u_{\min} = \sqrt{5g\ell}$$

32. Ans (2)

$$V_e = \sqrt{\frac{2GM}{R}} = \sqrt{\frac{2G \left( \rho \frac{4}{3} \pi R^3 \right)}{R}}$$

$$V_e \propto \sqrt{\rho R^2} \propto R$$

(if  $\rho$  = constant)

33. Ans (3)

$$|\hat{A} - \hat{B}| = 2 \Rightarrow \sqrt{1^2 + 1^2 + 2 \times 1 \times 1 \times \cos \theta}$$

$$\Rightarrow \cos \theta = 0 \Rightarrow \theta = 0^\circ$$

$$\text{so } |\hat{A} - \hat{B}| = \sqrt{1^2 + 1^2 - 2 \times 1 \times 1 \times \cos 0^\circ}$$

$$= 0$$

34. Ans (1)

$$\int_1^2 ds = \int_1^2 v dt = \int_1^2 (4t^3 + 3t^2 - 1) dt$$

$$s = (t^4 + t^3 - t)_1^2 = 21 \text{ m}$$

35. Ans (4)

Correct diameter of ball

$$= 5\text{mm} + 25 \times 0.001 \text{ cm} + 0.004 \text{ cm}$$

$$= 0.5\text{cm} + 0.025 \text{ cm} + 0.004 \text{ cm}$$

$$= 0.529 \text{ cm}$$

## SECTION - B

36. Ans (1)

Branch AD will have attraction & BC will have repulsion.

$$F_{\text{net}} = F_{\text{att}} - F_{\text{rep}}$$

$$F_{\text{att}} = 15 \times 10 \times 10^{-2} \times \frac{\mu_0}{2\pi} \times \frac{25}{5 \times 10^{-2}}$$

$$F_{\text{rep}} = 15 \times 10 \times 10^{-2} \times \frac{\mu_0}{2\pi} \times \frac{25}{30 \times 10^{-2}}$$

$$F_{\text{net}} = 1.25 \times 10^{-4} \text{ N}$$

(Attraction)

37. Ans (2)

Energy stored in the capacitor

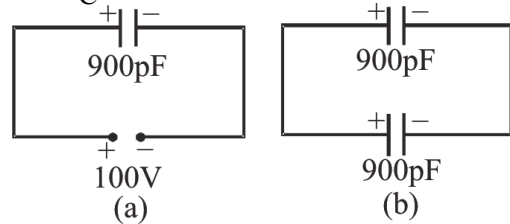
$$= \frac{1}{2} \frac{Q^2}{C}$$

$$Q = CV = 900 \times 10^{-12} \text{ F} \times 100\text{V}$$

$$\therefore Q = 9 \times 10^{-8} \text{ C}$$

Energy of the capacitor when fully charged

$$= \frac{1}{2} \frac{Q^2}{C} = 4.5 \times 10^{-6} \text{ J.}$$



The total charge is conserved. In figure (b), total

capacitance =  $C' = 2 \times C = 2 \times 900 \text{ pF}$ .

$$\therefore \text{Final energy} = \frac{1}{2} \frac{Q^2}{C'} = \frac{1}{2} \cdot \frac{Q^2}{2C}$$

$$\therefore \text{Final energy} = \frac{4.5 \times 10^{-6} \text{ J}}{2} = 2.25 \times 10^{-6} \text{ J.}$$

38. Ans (3)

f same

$$\frac{\lambda_2}{\lambda_1} = \frac{v_2}{v_1} = \sqrt{\frac{T_2}{T_1}} \quad \left\{ v = \sqrt{\frac{T}{\mu}} \right\}$$

$$\frac{\lambda_2}{\lambda_1} = \sqrt{\frac{(5+4)g}{4g}} = \sqrt{\frac{9}{4}} = \frac{3}{2}$$

39. Ans (3)

$$i = \frac{dQ}{dt} = \text{slope of } Q - t \text{ graph}$$

$$= -5 \text{ (which is constant)}$$

$$\text{Amount of heat generated in time } t = i^2 R t \propto t.$$

40. Ans (4)

$$x = \frac{(2n-1)\lambda}{2}$$

$$\frac{d^2}{2D} = \frac{(2n-1)\lambda}{2}$$

$$\lambda = \frac{d^2}{(2n-1)D}$$

$$\lambda = \frac{d^2}{D}, \frac{d^2}{3D}, \frac{d^2}{5D}, \dots$$

41. Ans (2)

At minimum distance of approach

entire K.E. of  $\alpha$  particle

converted into electric potential energy

$$10 \times 10^6 \times 1.6 \times 10^{-19} = \frac{9 \times 10^9 \times 2 \times 1.6 \times 10^{-19} \times 29 \times 1.6 \times 10^{-19}}{r}$$

$$r_{\min} = \frac{18 \times 29 \times 1.6 \times 10^{-10}}{10^{-7}}$$

$$r_{\min} = 835.2 \times 10^{-17} \text{ m}$$

$$r_{\min} = 8.35 \times 10^{-15} \text{ m}$$

42. Ans (4)

$$v \propto \sqrt{T}$$

$$\Rightarrow \frac{v}{200} = \sqrt{\frac{500}{400}}$$

$$\Rightarrow v = 100\sqrt{5} \text{ m/s}$$

43. Ans (3)

$$P = I_{\text{rms}}^2 R$$

$$I_{\text{rms}} = \frac{V_{\text{rms}}}{Z} = \frac{200}{100} = 2 \text{ A}$$

$$P = 4 \times 36$$

$$= 144 \text{ W}$$

45. Ans (1)

$$\begin{array}{ccc} \text{Heat absorb} & \text{Heat absorb} & \text{Heat released} \\ \text{by calorimeter} & + \text{by water} & = \text{by water} \\ & \text{at } 25^\circ\text{C} & \text{at } 40^\circ\text{C} \end{array}$$

$$1.5 \times 390 \times (40 - 25) + 0.2 \times S_w \times (40 - 25)$$

$$= 0.510 \times S_w (50 - 40)$$

$$8775 + 3S_w = 5.10 S_w$$

$$8775 = 2.1 S_w$$

$$\Rightarrow S_w = \frac{8775}{2.1} = 4178.5 \text{ J/kg-}^\circ\text{C}$$

$$\Rightarrow S_w = 4.18 \text{ kJ/kg-}^\circ\text{C}$$

46. Ans (1)

$$\text{Area removed} = \frac{\pi R^2}{9}$$

$$\text{original area} = \pi R^2 \Rightarrow \text{mass} = 9M$$

$$\text{removed mass} = M$$

MOI of removed part about 'O'

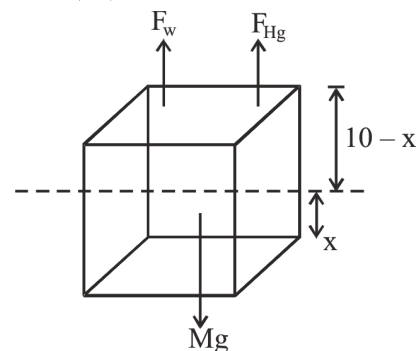
$$= \frac{M(R/3)^2}{2} + M \left( \frac{2R}{3} \right)^2$$

$$= \frac{MR^2}{18} + \frac{8MR^2}{18} = \frac{MR^2}{2}$$

MOI of remaining disc

$$= \frac{1}{2}(9M)R^2 - \frac{MR^2}{2} = 4MR^2$$

47. Ans (1)



$$F_w + F_{Hg} = Mg$$

$$\rho_w g V_w + \rho_{Hg} g V_{Hg} = \rho_B V_B g$$

$$V_w = 10 \times 10 \times (10 - x)$$

= displaced volume of water

$$V_{Hg} = 10 \times 10 \times (x)$$

= displaced volume of mercury

48. Ans (2)

$$P = \vec{F} \cdot \vec{V}$$

Where,

$$\vec{V} = V_x \hat{i} + V_y \hat{j} + V_z \hat{k} \quad (m = 1 \text{ kg})$$

$$\text{For } V_x \Rightarrow (1) F_x = ma_x$$

$$2t = \frac{dV_x}{dt} \times m$$

$$\int_0^t 2t dt = m \int_0^{V_x} dV_x = \int_0^{V_x} dV_x$$

$$t^2 = V_x$$

$$\text{Like wise } V_y = t^3 \text{ and } V_z = t^4$$

$$P = (2t\hat{i} + 3t^2\hat{j} + 4t^3\hat{k}) \cdot (t^2\hat{i} + t^3\hat{j} + t^4\hat{k})$$

$$P = (2t^3 + 3t^5 + 4t^7) \text{ W}$$

49. Ans (1)

$$V_{\max} = \sqrt{\left( \frac{\tan \theta + \mu}{1 - \mu \tan \theta} \right) Rg}$$

$$= \sqrt{\left( \frac{\tan 45 + 0.5}{1 - 0.5 \tan 45} \right) \times 1000 \times 9.8} = 172 \text{ m/s}$$

50. Ans (2)

If density of air is neglected

$$V_T = \frac{2}{9} \frac{r^2}{\eta} \rho_l g$$

$$\Rightarrow \eta = \frac{2}{9} \frac{r^2}{V_T} \rho_l g$$

$$= \frac{2}{9} \frac{(10^{-4}) (1.5 \times 10^3) (10)}{(25 \times 10^{-4})}$$

$$\Rightarrow \eta \approx 130 \text{ Pa-s.}$$

## SUBJECT : CHEMISTRY

### SECTION-A

51. Ans (4)

NCERT-XII Pg.#172

55. Ans (1)

NCERT-XII, Pg.#235

59. Ans (2)

Ga<sup>+</sup> is more stable than Al<sup>+</sup> due to inert pair effect.

61. Ans (4)

NCERT-XII, Pg.316

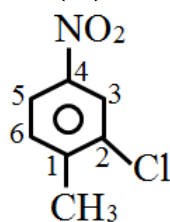
63. Ans (4)

NCERT-XII, Pg.#330, 331, 332

64. Ans (2)

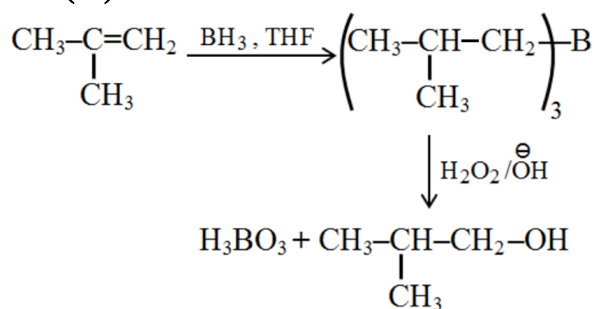
NCERT-XII, Pg.#365 (index Q.12.5)

65. Ans (1)

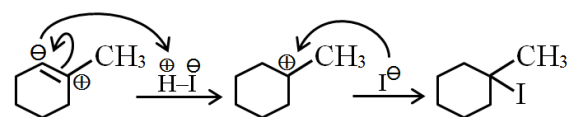


2-chloro-1-methyl-4-nitro benzene

68. Ans (1)

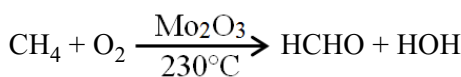


69. Ans (1)

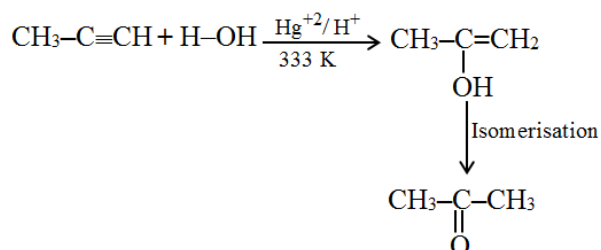


Electrophilic addition reaction

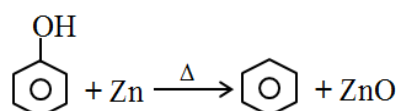
70. Ans (2)



71. Ans (1)



72. Ans (2)



73. Ans (1)

Molecular mass of BaSO<sub>4</sub>

$$= 137 + 32 + 64 = 233 \text{ gm}$$

233 gm BaSO<sub>4</sub> contains 32 gm sulphur

0.4813 gm BaSO<sub>4</sub> contains

$$= \frac{32 \times 0.4813}{233} \text{ gm sulphur}$$

$$\% \text{ of sulphur} = \frac{32 \times 0.4813 \times 100}{233 \times 0.157} = 42.10 \%$$

74. Ans (3)

NCERT-XII, part-1, Pg.#2

75. Ans (3)

NCERT-XII, par-1, Pg.#34

76. **Ans ( 3 )**

NCERT-XII, part-1, Pg.#49

$$\Delta T_b = 100^\circ\text{C} - 99.48^\circ\text{C} \\ = 0.52^\circ\text{C}$$

$$\Delta T_b = K_b \times m \times i$$

$$0.52 = 0.52 \times \left( \frac{w}{74.5} \times \frac{1000}{500} \right) \times 2$$

$$w = \frac{74.5}{4} = 18.625 \text{ g}$$

77. **Ans ( 3 )**

NCERT-XII, part-1, Pg.#80

$$\lambda_m = \kappa \times \frac{1000}{M} = G \left( \frac{\ell}{A} \right) \times \frac{1000}{M} \\ = \frac{1}{100} \times \frac{50 \text{ cm} \times 1000}{\pi \times 1 \text{ cm} \times 1 \text{ cm} \times 0.05} \\ = \frac{10000}{\pi} \text{ S cm}^2 \text{ mol}^{-1} \\ = \frac{10000 \times 10^{-4}}{3.14} \text{ S m}^2 \text{ mol}^{-1} = 0.318 \text{ S m}^2 \text{ mol}^{-1}$$

78. **Ans ( 4 )**

NCERT-XI, Laboratory manual, unit-6,  
titrimetric analysis, Pg.#34

79. **Ans ( 4 )**

NCERT-XI, part-1, Pg.#44

80. **Ans ( 2 )**

NCERT-XI, part-1, Pg.#208

81. **Ans ( 3 )**

NCERT-XI, part-1, Pg.#163

82. **Ans ( 4 )**

NCERT-XI, part-1, Pg.#212

83. **Ans ( 4 )**

NCERT-XI, part-1, Pg.#176

84. **Ans ( 4 )**

NCERT-XI, part-1, Pg.#247

85. **Ans ( 2 )**

NCERT-XI, part-1, Pg.#166

(1) It is not correct as standard state of carbon is graphite and not diamond.

(2) It is correct as one mole of product is being formed from its elements in standard state.

(3) It is not correct as two moles of the product are formed.

(4) CO is not an element but a compound.

## SECTION-B

86. **Ans ( 3 )**

NCERT-XII, Pg.#262

90. **Ans ( 3 )**

NCERT-XII, Pg.#324

91. **Ans ( 4 )**

NCERT-XII, Pg.#397,398

92. **Ans ( 2 )**

NCERT-XII, Pg.#334, 361, 362

93. **Ans ( 2 )**

NCERT-XII, Pg.#390, 391

94. **Ans ( 4 )**

NCERT-XII, Pg.#392 (table-10.4)

95. **Ans ( 3 )**

NCERT-XII, Pg.#335, 362, 386, 393

97. **Ans ( 1 )**

NCERT-XII, part-1, Pg.#33, 34, 44

The potential of individual half cell cannot be measured. In galvanic cell, anode has negative potential with respect to the solution.

98. **Ans ( 3 )**

NCERT-XII, part-1, Pg.#112, 119

99. Ans ( 3 )

Hint: NCERT-XII, part-1, Pg.#123

$$t_{20\%} \text{ at } 300 \text{ K} = t_{60\%} \text{ at } 320 \text{ K}$$

$$\frac{2.303}{K_{300}} \log \left( \frac{100}{80} \right) = \frac{2.303}{K_{320}} \log \left( \frac{100}{40} \right)$$

$$\frac{K_{320}}{K_{300}} = \frac{0.398}{0.097} = 4.1031$$

$$\log \left( \frac{K_2}{K_1} \right) = \frac{E_a}{2.303R} \left( \frac{T_2 - T_1}{T_1 T_2} \right)$$

$$\log(4.1031) = \frac{E_a \times 1000}{2.303 \times 2} \times \left( \frac{20}{300 \times 320} \right)$$

$$E_a = \frac{0.6131 \times 2.303 \times 96}{10} \text{ kcal}$$

$$E_a = 13.55 \text{ kcal}$$

100. Ans ( 1 )

NCERT-XI, part-1, Pg.#44,47,57,65

## SUBJECT : BOTANY

### SECTION - A

101. Ans ( 2 )

NCERT-XI, Pg. # 87

102. Ans ( 2 )

NCERT-XI, Pg. # 94,97

103. Ans ( 4 )

NCERT XI Page No. # 250

104. Ans ( 4 )

NCERT XI Page No. # 247.

105. Ans ( 2 )

NCERT XI Page No. # 21,24,25,26

106. Ans ( 1 )

NCERT XI Page No. # 30, 33

107. Ans ( 1 )

NCERT XI Page No. # 19

108. Ans ( 4 )

NCERT XI Page No. # 17, 20

109. Ans ( 1 )

NCERT XI Page No. # 11

110. Ans ( 4 )

NCERT XI Page No. # 79

111. Ans ( 4 )

NCERT XI Page No. # 76

112. Ans ( 3 )

NCERT-XI, Pg. # 159

113. Ans ( 3 )

NCERT-XI, Pg. # 233

114. Ans ( 4 )

NCERT-XI, Pg. # 230

115. Ans ( 2 )

NCERT-XII, Pg # 227(E), 249(H)

116. Ans ( 2 )

NCERT-XII, Pg # 237(E), 260(H)

117. Ans ( 2 )

NCERT-XII, Pg # 234(E), 256(H)

118. Ans ( 4 )

NCERT-XI, Pg # 220

119. Ans ( 3 )

NCERT-XI, Pg # 207,208

120. Ans ( 4 )

NCERT-XI, Pg # 213,214,217,218

121. Ans ( 3 )

NCERT XII Page No. # 104, 115, 116

122. Ans ( 3 )

NCERT XII Page No. # 115, 122, 110

123. Ans ( 2 )

NCERT XII Page No. # 116

124. Ans ( 4 )

NCERT XII Page No. # 121, 122

125. Ans ( 2 )

NCERT XII Page No. # 97

126. Ans ( 3 )

NCERT XII Page No. # 118, 120



127. **Ans ( 1 )**  
NCERT, Pg # 21(E), 22(H)
128. **Ans ( 2 )**  
NCERT, Pg # 25,38(E), 27,40(H)
129. **Ans ( 3 )**  
NCERT-XII, Pg.# 267
130. **Ans ( 3 )**  
NCERT-XII, Pg.# 245, 246
131. **Ans ( 3 )**  
NCERT-XII, Pg.# 261
132. **Ans ( 1 )**  
NCERT-XII, Pg.# 234
133. **Ans ( 4 )**  
NCERT-XII, Pg. # 72, 73
134. **Ans ( 4 )**  
NCERT-XII, Pg. # 90
135. **Ans ( 4 )**  
NCERT-XII, Pg. # 183

## SECTION - B

136. **Ans ( 4 )**  
NCERT XI Page No. # 36, 39
137. **Ans ( 2 )**  
NCERT-XI, Pg. # 235,236
138. **Ans ( 3 )**  
NCERT-XII, Pg # 232(E), 255(H)
139. **Ans ( 3 )**  
NCERT-XII, Pg # 229,230,231(E), 251,252,253(H)
140. **Ans ( 3 )**  
NCERT XII Page No. # 104, 107
141. **Ans ( 4 )**  
NCERT XII Page No. # 104
142. **Ans ( 2 )**  
NCERT, Pg # 35(E), 37(H)

143. **Ans ( 1 )**  
NCERT-XII, Pg.# 259
144. **Ans ( 3 )**  
NCERT-XII, Pg.# 262
145. **Ans ( 2 )**  
NCERT-XII, Pg. # 83, 88
146. **Ans ( 2 )**  
NCERT-XII, Pg. # 187
147. **Ans ( 3 )**  
NCERT-XII, Pg. # 181, 182, 183
148. **Ans ( 2 )**  
NCERT XI Page No. # 75, 76  
*Dianthus*, Primrose
149. **Ans ( 2 )**  
NCERT XI Page No. # 246
150. **Ans ( 3 )**  
NCERT-XI, Pg. # 85, 91, 90 only c is wrong

## SUBJECT : ZOOLOGY

### SECTION - A

151. **Ans ( 2 )**  
NCERT Page No. # 225 (E/H)
152. **Ans ( 3 )**  
NCERT XI Page No. # 135
153. **Ans ( 4 )**  
NCERT XII Page No. # 113
154. **Ans ( 3 )**  
NCERT Page No. # 147, 149
155. **Ans ( 4 )**  
NCERT Page No. # 158
156. **Ans ( 3 )**  
NCERT Page No. # 154
157. **Ans ( 4 )**  
NCERT Page No. # 149
158. **Ans ( 4 )**  
NCERT XI Page No. # 335/336

159. **Ans ( 3 )**  
NCERT XI Page No. # 340/341
160. **Ans ( 2 )**  
NCERT Page No. # 293
161. **Ans ( 4 )**  
NCERT Page No. # 126, 127
162. **Ans ( 2 )**  
NCERT Page No. # 138
163. **Ans ( 3 )**  
NCERT Page No. # 125, 126, 127
164. **Ans ( 4 )**  
NCERT Page No. # 126
165. **Ans ( 1 )**  
NCERT Page No. # 133
166. **Ans ( 1 )**  
NCERT Page No. # 162, 167, 169
167. **Ans ( 2 )**  
NCERT Page No. # 163, 164, 166, 168
168. **Ans ( 2 )**  
NCERT Page No. # 200
170. **Ans ( 3 )**  
NCERT, Pg # 55, 56
171. **Ans ( 1 )**  
NCERT, Pg # 56, 57
172. **Ans ( 3 )**  
NCERT XI, Pg # 148 Polysaccharide paragraph
173. **Ans ( 1 )**  
NCERT-XI, Pg # 119
174. **Ans ( 4 )**  
NCERT-XI, Pg # 102
175. **Ans ( 3 )**  
NCERT XI, Pg # 316, 317
176. **Ans ( 4 )**  
NCERT-XI, Pg # 272
177. **Ans ( 3 )**  
NCERT-XII, Pg # 43

178. **Ans ( 3 )**  
NCERT-XII, Pg # 48
179. **Ans ( 4 )**  
NCERT-XII, Pg # 48
180. **Ans ( 1 )**  
NCERT, Pg # 212, 213
181. **Ans ( 1 )**  
NCERT, Pg # 204
182. **Ans ( 4 )**  
NCERT-XII, Pg # 199, 209, 210
183. **Ans ( 1 )**  
NCERT, Pg # 198
184. **Ans ( 3 )**  
NCERT-XII, Pg # 198, 200
185. **Ans ( 4 )**  
NCERT, Pg # 212

## SECTION - B

186. **Ans ( 2 )**  
NCERT Page No. # 228 (Summary) (E)  
NCERT Page No. # 227 (सारांश) (H)
187. **Ans ( 3 )**  
NCERT Page No. # 150
188. **Ans ( 3 )**  
NCERT XI Page No. # 330-337/332-341
189. **Ans ( 3 )**  
NCERT Page No. # 297
190. **Ans ( 2 )**  
NCERT Page No. # 164
192. **Ans ( 3 )**  
NCERT, Pg # 46
193. **Ans ( 3 )**  
NCERT, Pg # 144, 2nd last Para.
194. **Ans ( 4 )**  
NCERT-XI, Pg # 102, 103, 104

195. Ans ( 2 )

NCERT XI, Pg # 319, 320

196. Ans ( 1 )

NCERT-XI, Pg # 276

197. Ans ( 2 )

NCERT-XII, Pg # 61

198. Ans ( 3 )

NCERT-XII, Pg # 53

199. Ans ( 1 )

NCERT, Pg # 195

200. Ans ( 1 )

NCERT, Pg # 213