Enthusiast, Leader & Achiever Course

PHASE : All Phase

TARGET : PRE-MEDICAL 2020

Test Type : **MAJOR** Test Pattern : **NEET (UG)**

TEST DATE : 07-07-2020

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.	3	1	1	3	2	1	4	3	1	2	4	1	3	4	3	4	1	4	3	4	4	4	2	2	4	4	2	1	4	4
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	4	2	1	4	4	2	1	2	2	4	2	1	4	4	4	3	3	1	1	2	3	3	2	1	1	3	3	3	3
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	4	2	2	1	4	4	2	2	1	1	3	4	3	1	1	1	1	2	1	4	1	2	3	3	1	4	1	4	2
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	1	4	1	3	3	4	3	4	3	2	1	3	4	3	3	1	2	2	4	3	4	3	3	4	4	3	1	2	1
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.	4	4	3	3	2	3	3	3	4	4	3	3	1	2	4	2	2	1	4	3	4	3	1	4	2	1	1	1	3	4
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.	3	3	3	1	1	4	4	3	3	3	4	2	4	1	4	1	2	4	3	1	1	2	1	4	1	2	4	2	2	3

HINT – SHEET

1. Ans (3)

For both the particles to collide at point, their time of flight should be same

$$T = \frac{2u\sin\theta}{g}$$

$$= \frac{2(10)\sin 60}{10}$$

$$= \frac{2\sqrt{3}}{2}$$

Time of flight of particle thrown from above

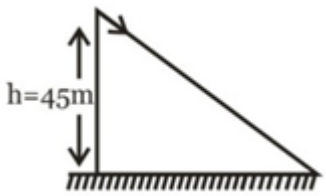
$$t = \sqrt{\frac{2h}{g}}$$

Equation we get

$$\sqrt{3} = \sqrt{\frac{2h}{g}}$$

or , h =15 m

2. Ans (1)



Taking motion in vertical direction,

$u = 0,\ g = 10\ ms^{-2},\ h = 45\ m$

$$h = ut + \frac{1}{2}gt^2$$

$$h = \frac{1}{2}gt^2$$

$$\Rightarrow t = \sqrt{\frac{2h}{g}} = 3\ sec$$

Now, taking motion in horizontal direction,

$u = 0,\ a = 10\ ms^{-2},\ t = 3\ sec$

$$x = ut + \frac{1}{2}at^2 = 45\ m$$

3. Ans (1)

Let $T \propto C^X G^Y h^Z \Rightarrow T = kC^X G^Y h^Z$

Taking dimensions on both sides,

$[M^0L^0T^1]=[M^0LT^{-1}]^X[M^{-1}L^3T^{-2}]^Y[ML^2T^{-1}]^Z$

i.e.

$$\left[M^0L^0T^1\right] = \left[M^{-Y+Z}L^{X+3Y+2Z}T^{-X-2Y-Z}\right]$$

Equating powers on each side,

$-Y + Z = 0,$

$X + 3Y + 2Z = 0,$

$-X - 2Y - Z = 1$;

On solving, $X = -5/2, Y = Z = ½$

So, $[T] = \left[G^{\frac{1}{2}} h^{\frac{1}{2}} c^{\frac{-5}{2}}\right]$

4. Ans (3)

$$\text{Density } (r) = \frac{\text{mass}(m)}{\text{volume}(v)}$$

$$\frac{\Delta\rho}{\rho} = \frac{\Delta m}{m} + \frac{\Delta v}{v}$$

$$\frac{\Delta\rho}{\rho} = \left(\frac{0.05}{5}\right)100\% + \left(\frac{0.05}{1}\right)100\%$$

$= 1\% + 5\%$

$= 6\%$

5. Ans (2)

$\Delta\vec{r} = \vec{v}_1\Delta t_1 + \vec{v}_2\Delta t_2$

$$= \left(2\hat{i} + 3\hat{j}\right)(1) + \left(2\hat{i} + 2\hat{j}\right)\left(\frac{1}{2}\right)$$

$$= \left(3\hat{i} + 4\hat{j}\right) m$$

6. Ans (1)

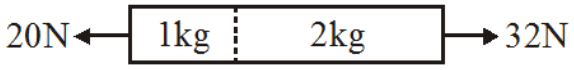
$u_y = u \sin\theta$

$y = u_y t - \frac{1}{2} gt^2$ or

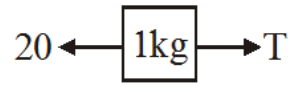
$5 = (25 \sin\theta) \times 2 - \frac{1}{2} \times 10 \times 2^2$

$\therefore \quad \sin\theta = \frac{1}{2}$ or $\theta = 30°$

7. Ans (4)



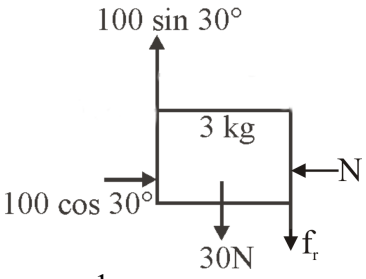
$\rightarrow a = \frac{32 - 20}{3} = 4 \text{ m/s}^2$



$T - 20 = (1)\ 4$

$T = 24$ N

8. Ans (3)



$f_{max} = \frac{1}{\sqrt{3}} (50\sqrt{3}) = 50$ N

$30 + fr = 50$

fr = 20N downward

9. Ans (1)

area of F-x curve = work done

W = 20 ergs

10. Ans (2)

$$\text{Power} = \frac{\text{Work done}}{\text{time}} = \frac{\frac{1}{2}m(v^2 - u^2)}{t}$$

$$P = \frac{1}{2} \times \frac{2.05 \times 10^6 \times [(25)^2 - (5^2)]}{5 \times 60}$$

$P = 2.05 \times 10^6$ W $= 2.05$ MW

11. Ans (4)

$mgh = \frac{1}{2}(m)\left(\sqrt{5gR}\right)^2$

$\Rightarrow gh = \frac{1}{2}(5gR)$

$10 \times 5 \times 10^{-2} = \frac{1}{2} \times 5 \times 10 \times R$

$R = 2 \times 10^{-2}$ m

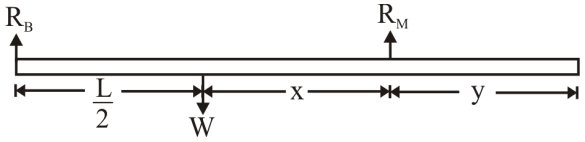
R = 2cm

12. Ans (1)

Weight of the rod = w

Reaction of boy $R_B = w/4$

Reaction of man $R_M = 3w/4$



As the rod is in rotational equilibrium

$\therefore \quad \Sigma\tau = 0$

$$R_B \times \frac{L}{2} - R_M \times x = 0$$

$$\Rightarrow \frac{w}{4} \times \frac{L}{2} - \frac{3w}{4} \times x = 0$$

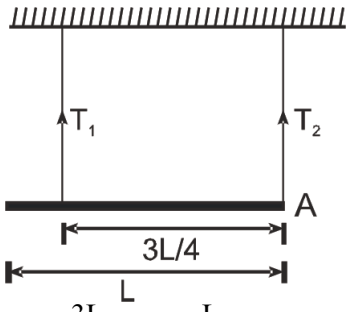
$$\Rightarrow x = \frac{L}{6}$$

So, distance from other end, $y = \frac{L}{2} - x$

$$\Rightarrow y = \frac{L}{2} - \frac{L}{6} = \frac{2L}{6} = \frac{L}{3}$$

13. Ans (3)

$\tau_A = 0$



$$T_1 \times \frac{3L}{4} - mg\,\frac{L}{2} = 0 \qquad ....(1)$$

$$T_1 = \frac{2mg}{3}$$

$T_1 + T_2 = mg \qquad ....(2)$

$$T_2 = \frac{mg}{3}$$

$$\frac{T_1}{T_2} = \frac{2}{1}$$

14. Ans (4)

$$\frac{1}{2}mv^2\left(\frac{K^2}{R^2}\right) = 40\%\ \frac{1}{2}mv^2$$

$$\frac{K^2}{R^2} = \frac{40}{100} = \frac{2}{5}$$

solid sphere

15. Ans (3)

$$p = mv_0 = m\sqrt{\frac{GM}{r}}$$

i.e., $p \propto 1\sqrt{r}$

$$\frac{P_A}{P_B} = \sqrt{\frac{Rb}{Ra}} = \sqrt{\frac{R+3R}{R+R}} = \sqrt{2}$$

16. Ans (4)

$$V = \frac{\pi pr^4}{8\eta l}$$

$\therefore \quad V \propto pr^4$ (η and ℓ are constants)

$$\therefore \quad \frac{V_2}{V_1} = \left(\frac{p_2}{p_1}\right)\left(\frac{r_2}{r_1}\right)^4 = 2 \times \left(\frac{1}{2}\right)^4 = \frac{1}{8}$$

$$\therefore \quad V_2 = \frac{Q}{8}$$

17. Ans (1)

Let the atmospheric pressure be P_0 pressure just outside the bubble,

$P = P_0 + h\rho g$

Pressure of air inside the bubble

σ is surface tension

$$P_{in} = P_0 + h\rho g + \frac{2\sigma}{r}$$

$$\therefore \quad P' - P_0 = \frac{1}{5} \times 1000 \times 9.8 + \frac{2 \times 0.075}{1 \times 10^{-3}}$$

$= 1960 + 150 = 2110$ Pa

18. Ans (4)

$$\frac{20}{1} = (k)\left[\frac{60+80}{2} - 30\right] \Rightarrow k = \frac{1}{2}$$

$$\frac{60-50}{t} = k\left[\frac{60+50}{2} - 30\right] = \frac{1}{2}[25]$$

$$t = \frac{20}{25}\ \text{min} = \frac{4}{5}\ \text{min} = 48\ \text{sec.}$$

19. Ans (3)

Real gas eq^n :

$$\left(P + \frac{n^2a}{V^2}\right)(V - nb) = nRT$$

Due to intermolecular attraction.

20. Ans (4)

PT = constant

$P(PV) = \text{constant} \Rightarrow PV^{1/2} = \text{constant}$

$$C_x = \frac{fR}{2} + \frac{R}{-x+1} = \frac{9}{2}R$$

$$\frac{f}{2} + \frac{1}{1/2} = \frac{9}{2}$$

$$\frac{f}{2} = \frac{5}{2} \Rightarrow f = 5$$

21. Ans (4)

$$f = \frac{1}{2n}\sqrt{\frac{k_1 + k_2}{m}}$$

$$f' = \frac{1}{2n}\sqrt{\frac{4k_1 + 4k_2}{m}} = 2f$$

22. Ans (4)

Sound waves are longitudinal while light waves transverse irrespective of medium.

23. Ans (2)

$y_1 = 4 \sin 404\,\pi t$. $y_2 = 3 \sin 400\,\pi t$

$\therefore \quad \omega_1 = 404\,\pi, \omega_2 = 400\,\pi, A_1 = 4, A_2 = 3$

$\omega 1 = 2\pi v_1$

or $\quad 404\pi = 2\pi v_1$

or $\quad v_1 = 202$ Hz

$\omega_2 = 2\pi v_2$

or $\quad 400\pi = 2\pi v_2$

or $\quad v_2 = 200$ Hz

Beat frequency = $v_1 - v_2 = 202 - 200 = 2$ Hz.

$$\therefore \frac{I_{max}}{I_{min}} = \left(\frac{A_1 + A_2}{A_1 - A_2}\right)^2$$

$$= \left(\frac{4+3}{4-3}\right)^2 = \left(\frac{7}{1}\right)^2 = \frac{49}{1}$$

24. Ans (2)

By theory

25. Ans (4)

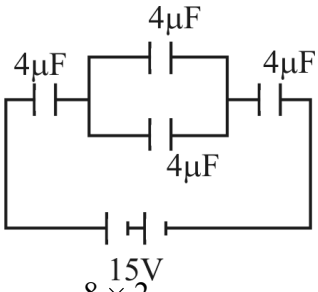
Gauss Law is applicable only for the forces following inverse square.

26. Ans (4)

Surface of conductor is equipotential surface

So $\quad V_A = V_B = V_C$

27. Ans (2)



$$C_{eff} = \frac{8 \times 2}{8+2} = 1.6\mu F$$

Energy stored = $\frac{1}{2}\ 1.6 \times 10^{-6} \times 15^2$ J

$= 180 \times 10^{-6}$J $= 180 \times 10^{-6} \times 10^7$erg

= 1800 erg

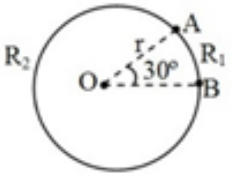
28. Ans (1)

$2\pi r$ length of wire has resistance = 36 Ω

So,

$\frac{r\pi}{6}$ length of wire has resistance

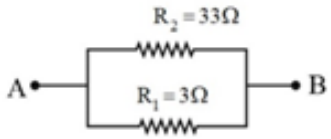
$$= \frac{36}{2\pi r} \times \frac{\pi r}{6} = 3\Omega$$



$R_1 = 3\Omega$

$R_2 = 33\,\Omega$

Both R_1 and R_2 are connected across AB



$$R_{eq} = \frac{3 \times 33}{3+33} = 2.75\,\Omega$$

29. Ans (4)

$$\frac{P_1}{P_2} = \frac{V^2/R_1}{V^2/R_2} = \frac{2R}{R} = \frac{2}{1}$$

30. Ans (4)

$\because$ charge is at Rest $\Rightarrow F_e = 0 \Rightarrow E = 0$

also $F_M = qvB \sin\theta \Rightarrow F_M$ may or may not zero

31. Ans (3)

$\tau = NIAB\sin\theta$

Hence $N = 10$

$I = 0.4$

$A = \pi r^2 = \pi(0.01)^2$

$$B = B_s = \mu_0 \frac{N}{\ell} I = 4\pi \times 10^{-7} \times \frac{500}{0.4} \times 3$$

$B = 15\pi \times 10^{-4}$ T

So, $\theta = 90°$

$\tau = NIAB \sin\theta$

$\tau = 10 \times 0.4 \times \pi(0.01) \times (0.01) \times 15\pi \times 10^{-4} \times 1$

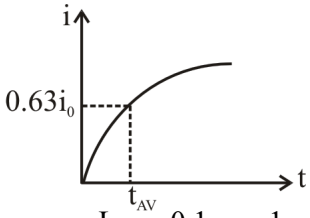
$\tau = 6 \times 10^{-6}$ N–m

33. Ans (2)

$\vec{E}$ due to change → Conservative

due to change in B = Non conservative in nature

34. Ans (1)



$$t_{AV} = \frac{L}{R} = \frac{0.1}{4} = \frac{1}{40} \text{ sec.}$$

35. Ans (4)

$i_{rms}^2 R = 3\, i_{dc}^2 R$

$i_{rms} = i_{dc}\sqrt{3} = 2\sqrt{3}$ A

37. Ans (2)

$$\frac{1}{f_1} = (1.2 - 1)\left(\frac{1}{\infty} - \frac{1}{-14}\right) = \frac{0.2}{14}$$

$$\frac{1}{f_2} = (1.5 - 1)\left(\frac{1}{14} - \frac{1}{\infty}\right) = \frac{0.5}{14}$$

$$\frac{1}{f_{eq}} = \frac{0.7}{14} = \frac{1}{20}$$

$$\frac{1}{v} - \frac{1}{-40} = \frac{1}{20}$$

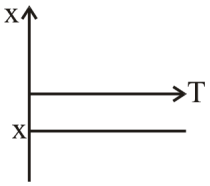
$v = 40$ cm

39. Ans (2)

Dia → $0 < \mu_r < 1$

$\because \ \mu_r = 1 + x$

$\Rightarrow -1 < x < 0$



40. Ans (2)

$a = 2\text{mm} = 2 \times 10^{-3}\text{m}, \ \lambda = 500 \times 10^{-9}$ m

$D = 1\text{m}$

distance b/w first minima on both side

$$x = \frac{2\lambda D}{a}$$

$$x = \frac{2 \times 500 \times 10^{-9} \times 1}{2 \times 10^{-3}}$$

$= 5 \times 10^{-4}\text{m} = 0.5\text{mm}$

41. Ans (4)

$$\lambda = \frac{h}{p}$$

$\lambda \rightarrow$ same

$p \rightarrow$ same

$p_e = p_p$

$$KE = \frac{p^2}{2m}$$

$$K.E. \propto \frac{1}{m}$$

$m_e < m_p$

So $KE_e > KE_p$

42. Ans (2)

Higher binding energy per nucleon, higher the stability of nucleus.

43. Ans (1)

$\lambda_A N_A = 10$ mCi

$\lambda_B N_B = 20$ mCi

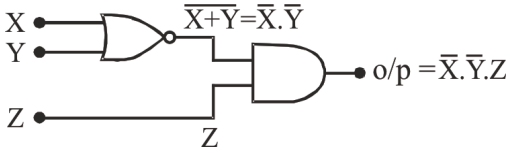
$$\frac{\lambda_A}{\lambda_B} \times \frac{2N_B}{N_B} = \frac{1}{2}$$

$$\Rightarrow \frac{\lambda_A}{\lambda_B} = \frac{1}{4} \Rightarrow \frac{T_A}{T_B} = 4$$

44. Ans (4)

Temperature coefficient of resistance is positive for copper & negative for germanium.

45. Ans (4)



For o/p must be 1

X = 0; Y = 0; Z = 1

46. Ans (4)

CO is neutral oxide of carbon

47. Ans (3)

Also froth floatation process is mainly used for sulphide ores.

48. Ans (3)

$Na_2S_2O + AgBr \rightarrow Na_3Ag(S_2O_3)_2 + NaBr$

unexposed

The property is used for fixing in photography.

49. Ans (1)

$Mn^{2+} = 3d^5 4s^0$

$Fe^{2+} = 3d64s^0$

$Cr^{+3} = 3d^3 4s^0$

$Ni^{2+} = 3d^8 4s^0$

50. Ans (1)

BF_3 is least acidic among boron halide

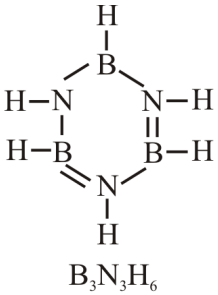
51. Ans (2)

Sodium is heated in

$2Na + O_2$ (air) $\rightarrow Na_2O_2(X)$

$2CO_2 + 2Na_2O_2 \rightarrow 2Na_2CO_3 + O_2(Y)$

52. Ans (3)



$B_3N_3H_6$

It is isoelectronic whith benzene

54. Ans (2)

$BeO + 2HCl \rightarrow BeCl_2 + H_2O$

$BeO + 2NaOH \rightarrow Na_2BeO_2 + H_2O$

55. Ans (1)

$F_2 > Cl_2 > Br_2 > I_2$; Oxidising power

56. Ans (1)

$NH_4NO_2 + KOH \rightarrow NH_3\uparrow + KNO_2 + H_2O$

(X) (Y) (Z)

$NO_2^- + 3Zn + 50H^- + 5H_2O$

(Z)

$\rightarrow 3[Zn(OH)_4]_2^- + NH_3\uparrow$

$NH_4NO_2 \xrightarrow{\Delta} N_2\uparrow + 2H_2O$

(X) (Does not suport combustion)

58. Ans (3)

Sr cation is very large in size and in terms of Fajan's rules brings about less polarization of electronic cloud of anion (Cl^-) i.e. $SrCl_2$ is most ionic in nature.

59. Ans (3)

According to Drago's rule :

$NH_3 > PH_3 > ASH_3$

107° 94° 92°

60. Ans (3)

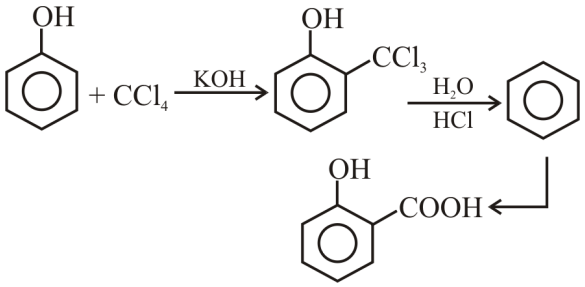
N,O and F (p-block elements) are highly electronegative non metals and will have the strongest tendency to form anions by gaining electrons from metal atoms.

61. Ans (4)

The alcohol can be converted to aldehyde group by treating with oxidising agent Pyridinium chloro chromate $(C_5H_5\overset{\oplus}{N}HCrO_3Cl^-)$ PCC and is called collin's reagent. This reagent is used in non aqueous solvent like CH_2Cl_2. It is a very good reagent because it checks the further oxidation of aldehyde to carboxylic acid while rest oxidising agent oxidise aldehyde into carboxylic acid.

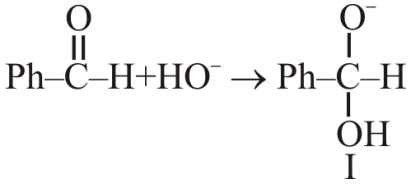
62. Ans (4)

In Riemer-Tiemen reaction when phenol react with CCl_4 in alcoholic KOH, it forms salicylic acid

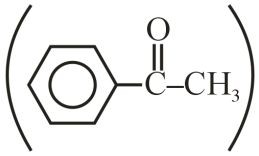


63. Ans (2)

The slowest step in Cannizzaro reaction is transfer of hydride to the carbonyl group.



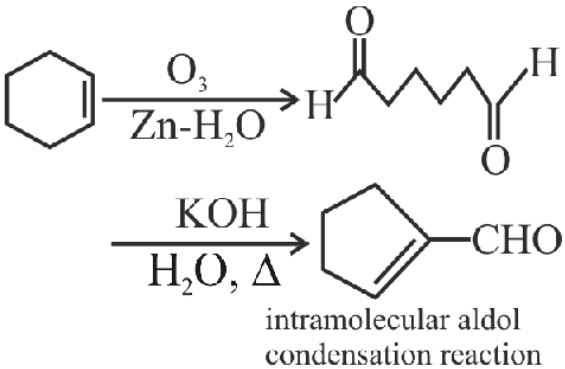
64. Ans (2)

Acetophenone  is a ketone.

Diastase is an enzyme that converts starch into maltose.

Cycloheptane  is a cyclic aliphatic compound

65. Ans (1)



intramolecular aldol condensation reaction

66. Ans (4)

Boiling point ∝ Molecular Weight

Boiling point ∝ Extent of H-bond

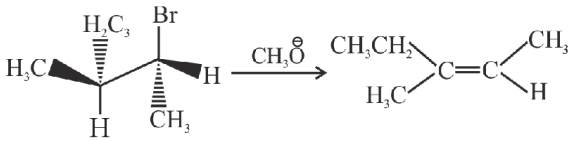
The extent of H-bond in the phenol is very less as well as the molecular weight also less.

67. Ans (4)

The ortho and para isomers can be separated by steam distillation. o-nitrophenol is more volatile due to intramolecular hydrogen bonding.

68. Ans (2)

The given alkyl bromide can be rotated to give the following conformer in which H and Br are antiplanar.



69. Ans (2)

Diazonium ion acts as an electrophile, electron-withdrawing groups on its phenyl ring increases its electrophilicity

70. Ans (1)

$$R-CH_2-OH \xrightarrow{Cu,573\ K} \underset{\text{Aldehyde}}{R-CH=O} + H_2$$

76. Ans (1)

Synersis is expulsion of a liquid from a gel, which hardens the gel.

77. Ans (1)

$$Ag_2O(s) \rightarrow 2Ag(s) + \frac{1}{2}O_2(g)$$

The reaction will be in equilibrium at temperature

$$= \frac{\Delta H}{\Delta S} = \frac{30.58 \times 10^3}{66.11} = 462.6K$$

78. Ans (1)

The orbitals which belong to same subshell and same shell are called degenerate orbitals.

$(3d_{xy}, 3d_{z^2}, 3d_{yz})$ and $(4d_{xy}, 4d_{yz}, 4d_{z^2})$ are the two sets of degenerate orbitals.

79. Ans (2)

$$v_{H_2} = v_{O_2}$$

$$\sqrt{\frac{3RT_{H_2}}{M_{H_2}}} = \sqrt{\frac{3RT_{O_2}}{M_{O_2}}}$$

So, $\sqrt{M_{O_2}T_{H_2}} = \sqrt{M_{H_2}T_{O_2}}$

$$32 \times T_{H_2} = 2 \times 1600$$

$$T_{H_2} = 2 \times \frac{1600}{32} = 100$$

80. Ans (1)

$$N = \frac{W_B \times 1000}{E \times V} \Rightarrow \frac{1}{10} = \frac{x \times 1000}{63 \times 25}$$

Where, W_B is the weight of sample, E is the equivalent weight of substance and V is volume of solution.

$\therefore$ x = 0.158 g

81. Ans (4)

For the two gases,

$P_A = 2P_B$; $V_A = 2V_B$; $T_A = 2T_B$

$P_AV_A = n_ART_A$ and $P_BV_B = n_BRT_B$

$$\frac{n_A}{n_B} = \frac{\frac{P_AV_A}{RT_A}}{\frac{P_BA_B}{RT_B}} = \frac{\frac{2P_B \times 2V_B}{2T_B}}{\frac{P_B \times V_B}{T_B}} = 2$$

The number of molecules are also in the ratio 2 : 1

82. Ans (1)

$A_t = A_0 - Kt$

By using this equation we get constant value of K

83. Ans (2)

$$w = \frac{E}{F} \times Q$$

$$w = \frac{56}{3 \times F} \times 3F$$

= 56 g

84. Ans (3)

Mol wt. of CH_4 = 16

Mol. wt. of C_2H_4 = 28

$$\therefore 20 = \frac{16x + 28y}{x + y}$$

or 16x + 28 y = 20x + 20 y

or 4x = 8y

or x = 2y

In the gaseous mixture when the mole ratio of CH_4 and C_2H_4 is y : x

then avg. mol. wt. $= \frac{16y + 28x}{x + y} = \frac{16y + 56y}{3y}$

$$= \frac{72y}{3y} = 24$$

85. Ans (3)

Easily liquefiable gases like SO_2, NH_3, CO_2 are adsorbed to a greater extent than the elemental gases like N_2, O_2, H_2

86. Ans (1)

	H_2	+ Cl_2	$\rightarrow$ 2HCl
t = 0	1	1	–
t = completion	–	–	2

When equal volumes of H_2 and Cl_2 are mixed, the volume of mixture does not change after the reaction as the number of moles are constant.

87. Ans (4)

As per (n + 1) rule electrons fill first in that orbital which have least (n + 1) value. When (n + 1) values are same. then electron fills that orbital which have lowest n value when n = 7 as per (n + 1) rule when

n = 7 ns subshell $\Rightarrow$ 7 + 0 = 7

(n – 1)d subshell $\Rightarrow$ 6 + 2 = 8

(n – 2) f subshell $\Rightarrow$ 5 + 3 = 8

np subshell $\Rightarrow$ 7 + 1 = 8

ns, (n – 2) f, (n – 1)d, np

(n + 1) values $\Rightarrow$ 8,8,8

n value $\Rightarrow$ 5,6,7

88. Ans (1)

$Ag_2CrO_4 \Rightarrow 2Ag^+ + CrO_4^{2-}$; $K_{sp} = 4 \times 10^{-12}$

2S S

$K_{sp} = [Ag^+]^2 \times [CrO_4^{2-}]$

$K_{sp} = [2S]^2 .[S] = 4S^3$

$$S^3 = \frac{K_{sp}}{4} = \frac{4 \times 10^{-12}}{4}$$

$S^3 = 10^{-12}$

$S = 10^{-4}$ mol/lt.

89. Ans (4)

Density is given by

$$\rho = \frac{Z \times M}{N_A \times (a)^3}$$

Density = 4 g/cm^3 (given)

$$\therefore 4 = \frac{72 \times Z}{6 \times 10^{23} \times (5 \times 10^{-8})^3}$$

$$= \frac{72 \times Z}{6 \times 10^{23} \times 10^{-24} \times 125}$$

$\therefore$ Z = 4

90. Ans (2)

For reaction

$CO_2(g) + 2H_2O(l) \rightarrow CH_4(g) + 2O_2(g)$

$\Delta_rH° = \sum(\Delta_fH°)_{products} - \sum(\Delta_fH°)_{reactants}$

$= [(\Delta_fH°(CH_4) + 2 \times 0)$

$- (\Delta_fH°(CO_2) + 2\Delta_fH°(H_2O))]$

$\Rightarrow + 890.3 = [\Delta_fH°(CH_4)]$

$- [- 393.5 + 2 \times (-285.8)]$

$\Delta_fH°$ of $CH_4(g) = - 74.8$ kJ/mol

93. Ans (4)

NCERT (XIth) Pg#38

101. Ans (2)

NCERT-XII, Pg. # 169

106. Ans (3)

NCERT-XI - Page No.-56 "Vertebrata"

108. Ans (2)

Movement of basilar membrane bend the hair cells

109. Ans (2)

NCERT (XIIth) Pg. # 62, Last para

113. Ans (3)

Fig. 2.5(b), 2.4, 2.6(b), 2.3

119. Ans (2)

NCERT Pg. # 253

120. Ans (1)

NCERT (XI) Pg # 270

121. Ans (4)

NCERT (XIIth) Pg. # 64

123. Ans (3)

NCERT (XIIth) Pg. # 187

124. Ans (3)

NCERT XI, Page # 26,27

126. Ans (3)

Carbon fixation i.e. photo syntheis, *Azotobacter* and *Rhizobium* are non photosynthesis. They only fix nitrogen not carbon. *Rhodospirillum* and *oscillatoria* both are photosynthetic. They fix carbon as well as nitrogen.
Oscillatoria is a BGA and shows oxygenic (O_2 releasing) photosynthesis but *Rhodospirillum* not release O_2 during photosynthesis

128. Ans (3)

NCERT XIth Pg. # 80, 5.9.2

129. Ans (4)

NCERT Pg. # 126 ; V Para Ist line

131. Ans (3)

Module-4 NCERT Pg. # 5

142. Ans (3)

NCERT XI (E)Pg.# 303, para 4
NCERT XI (H)Pg.# 303, para 4

149. Ans (3)

From Module

150. Ans (4)

Statement (C) is wrong because enzymes are not made up of lipids

151. Ans (3)

NCERT Pg. # 207

153. Ans (3)

NCERT (XI), Pg. # 312

158. Ans (3)

NCERT XI Pg. # 94, Figure 6.8(a)

166. Ans (1)

Module–4, Pg. # 161

167. Ans (2)

NCERT (XIIth) Pg. # 160 Para 8.5

170. Ans (1)

NCERT-XII Pg # 27(E), 28(H)

171. Ans (1)

NCERT (XII) Pg. # 154, Fig. 8.5, Para-8.2.7

179. Ans (2)

NCERT Pg.#101