

ENTHUSIAST COURSE

PHASE : MEA,B,C,D,L,M,U,N,O,P,Q & MEPS

TARGET : PRE-MEDICAL 2025

Test Type : MAJOR

Test Pattern : NEET (UG)

TEST DATE : 21-11-2024

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. | 3 | 1 | 4 | 3 | 2 | 4 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 4 | 1 | 1 | 4 | 1 | 3 | 1 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 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. | 2 | 2 | 1 | 3 | 2 | 4 | 4 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 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. | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 2 | 3 | 4 | 3 | 3 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 4 | 1 |
| 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. | 3 | 2 | 3 | 1 | 2 | 2 | 4 | 3 | 3 | 3 | 1 | 2 | 2 | 1 | 3 | 2 | 4 | 3 | 2 | 1 | 1 | 2 | 4 | 4 | 4 | 3 | 1 | 4 | 3 | 2 |
| 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 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 3 | 4 | 3 | 1 | 1 | 2 | 3 | 3 | 4 | 3 | 4 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 |
| 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 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 4 | 1 | 1 | 2 | 1 | 4 | 3 | 3 | 2 | 4 | 2 | 3 | 3 | 4 | 1 | 3 | 1 | 2 | 3 | 3 | 3 | 3 |
| Q. | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | | | | | | | | | | |
| A. | 4 | 2 | 2 | 3 | 4 | 2 | 3 | 2 | 3 | 3 | 4 | 2 | 2 | 1 | 1 | 3 | 2 | 1 | 3 | 3 | | | | | | | | | | |

HINT - SHEET

SUBJECT : PHYSICS

SECTION - A

1. **Ans (3)**

$$[\text{Tension}] = [\text{MLT}^{-2}]$$

$$[\text{surface tension}] = \frac{[\text{MLT}^{-2}]}{[\text{L}]} = [\text{ML}^0\text{T}^{-2}]$$

2. **Ans (1)**

Kilogram is a unit

3. **Ans (4)**

$$[E] = [\text{ML}^2\text{T}^{-2}], [m] = [M]$$

$$[L] = [\text{ML}^2\text{T}^{-1}], [G] = [\text{M}^{-1}\text{L}^3\text{T}^{-2}]$$

$$\therefore \left[\frac{EL^2}{m^5G^2} \right] = \frac{[\text{ML}^2\text{T}^{-2}][\text{M}^2\text{L}^4\text{T}^{-2}]}{[\text{M}^5][\text{M}^{-2}\text{L}^6\text{T}^{-4}]} = [\text{M}^0\text{L}^0\text{T}^0]$$

As angle has no dimensions, therefore $\frac{EL^2}{m^5G^2}$ has the same dimensions as that of angle.

4. **Ans (3)**

Dimension of angles are always zero.

$$\therefore [B] = \text{L}^{-1}$$

$$\therefore [D] = \text{T}^{-1}$$

$$[DB] = [\text{L}^{-1}\text{T}^{-1}]$$

5. **Ans (2)**

Given, $T \propto G^a m_s^b r^c$

$$[T] = T$$

$$[G] = \left[\frac{\text{Fr}^2}{\text{m}^2} \right] = \text{M}^{-1}\text{L}^3\text{T}^{-2}$$

$$[m_s] = m$$

$$[r] = L$$

$$\therefore [T] \propto [\text{M}^{-1}\text{L}^3\text{T}^{-2}]^a [\text{M}]^b [\text{L}]^c$$

$$\Rightarrow [T] \propto [\text{M}]^{-a+b} [\text{L}]^{3a+c} [\text{T}]^{-2a}$$

$$-a+b=0 \quad \dots(1)$$

$$3a+c=0 \quad \dots(2)$$

$$\& -2a=1 \quad \dots(3)$$

$$\text{solving, } a = b = -\frac{1}{2}, C = \frac{3}{2}$$

$$\therefore a + b + 2c = -\frac{1}{2} - \frac{1}{2} + 3 = 2$$

6. **Ans (4)**

If the digit to be rounded off is 5 then the preceding digit is increased by one if it is odd.

7. **Ans (3)**

$$\frac{\Delta \rho}{\rho} \times 100 = \left[\frac{\Delta M}{M} + \frac{\Delta V}{V} \right] \times 100$$

$$= \left[\frac{0.05}{5} + \frac{0.05}{1} \right] \times 100 = 6\%$$

9. **Ans (2)**

Least count of vernier callipers

$$= \left(1 - \frac{9}{10} \right) \times 1 \text{ mm} = 0.1 \text{ mm}$$

$$\text{Zero error} = \text{VSR} \times \text{LC} = 3 \times 0.1 = 0.3 \text{ mm}$$

$$\text{Reading} = \text{MSR} + \text{VSR} \times \text{LC}$$

$$= 13 \text{ mm} + 7 \times 0.1 \text{ mm} = 13.7 \text{ mm}$$

$$\text{Correct reading} = \text{Reading} - \text{Zero error}$$

$$= 13.7 - 0.3 \text{ mm} = 13.4 \text{ mm}$$

10. **Ans (3)**

$$\text{Volume of cylinder } V = \frac{\pi d^2 L}{4}$$

∴ Percentage error in volume

$$\Rightarrow \frac{\Delta V}{V} \times 100 = \frac{2\Delta d}{d} \times 100 + \frac{\Delta L}{L} \times 100$$

$$= 2 \left(\frac{0.01}{2.0} \right) \times 100 + \frac{0.1}{5.0} \times 100$$

$$= 3\%$$

11. **Ans (3)**

$$\text{Pitch} = \frac{\text{distance moved on main scale}}{\text{no. of rotation}}$$

$$\text{Pitch} = \frac{0.01}{1} = 0.01 \text{ cm}$$

$$\text{L.C.} = \frac{\text{Pitch}}{\text{No. of division}} = \frac{0.01}{100}$$

$$\boxed{\text{L.C.} = 10^{-4} \text{ cm}}$$

12. **Ans (4)**

$$\text{Least count of screw gauge} = \frac{0.5}{50} \text{ mm} = 0.01 \text{ mm}$$

$$\therefore \text{Reading} = [\text{Main scale reading} + \text{circular scale reading} \times \text{L.C.}] - (\text{zero error})$$

$$= [3 + 35 \times 0.01] - (-0.03) = 3.38 \text{ mm}$$

13. **Ans (3)**

The correct value of diameter is upto 3 digits after the decimal as the least count is 0.001 cm

14. **Ans (4)**

$$\vec{V}(A) = V \hat{i}$$

$$\vec{V}(B) = \frac{V}{2} \hat{i} - \frac{V}{2} \hat{j}$$

$$\therefore \vec{V}_A + \vec{V}_{\text{wind}} = \frac{V}{2} \hat{i} - \frac{V}{2} \hat{j}$$

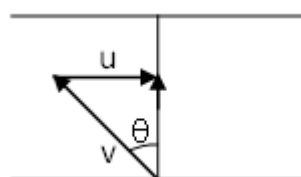
$$\therefore \vec{V}_{\text{wind}} = -\frac{V}{2} \hat{i} - \frac{V}{2} \hat{j}$$

direction : south-west

15. **Ans (1)**

$$v = 10 \text{ m/s}$$

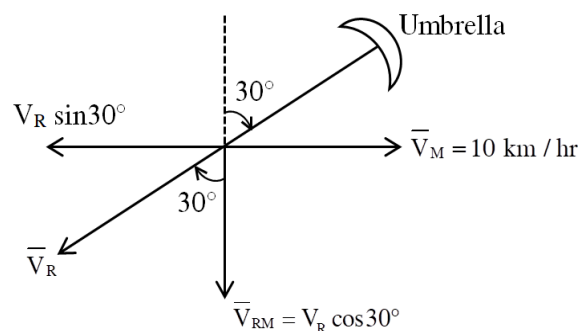
$$u = 5 \text{ m/s}$$



$$\sin \theta = \frac{u}{v} = \frac{10}{20} = \frac{1}{2}$$

$$\Rightarrow \theta = 30^\circ \text{ west}$$

16. **Ans (1)**



$$V_R \sin 30^\circ = V_M = 10$$

$$\therefore V_R = 20 \text{ km/hr}$$

$$\vec{V}_{RM} = 20 \times \frac{\sqrt{3}}{2} = V_R \cos 30^\circ$$

$$\therefore \vec{V}_{RM} = 10\sqrt{3} \text{ km/hr}$$

17. **Ans (4)**

$$[\vec{r}_{\text{final}}]_A = [\vec{r}_{\text{final}}]_B$$

$$\vec{r}_A + \vec{V}_A t = \vec{r}_B + \vec{V}_B t$$

$$(4\hat{i} + 6\hat{j}) + (6\hat{i} - 2\hat{j})t = (12\hat{i} + 14\hat{j}) + (x\hat{i} - 10\hat{j})t$$

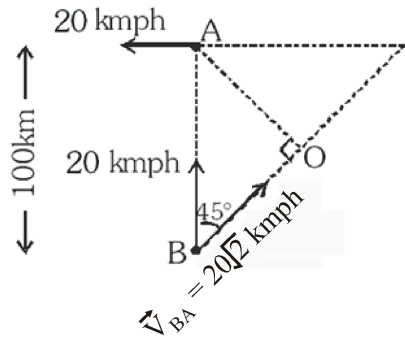
$$4 + 6t = 12 + xt \quad \dots(i)$$

$$6 - 2t = 14 - 10t \quad \dots(ii)$$

$$\Rightarrow t = 1 \text{ sec}$$

$$\Rightarrow x = 10 - 12 = -2$$

18. Ans (1)



$$|\vec{v}_{BA}| = \sqrt{20^2 + 20^2} = 20\sqrt{2} \text{ kmph}$$

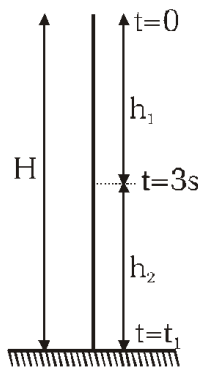
$$\text{distance } OB = 100 \cos 45^\circ = 50\sqrt{2} \text{ km}$$

Time taken to reach the shortest distance

$$\text{between A \& B} = \frac{50\sqrt{2}}{|\vec{v}_{BA}|} = \frac{50\sqrt{2}}{20\sqrt{2}}$$

$$t_{sn} = 2.5 \text{ hrs.}$$

19. Ans (3)



$$H = \frac{1}{2}g(5)^2 = \frac{1}{2}(10)(5)^2 = 125 \text{ m}$$

$$h_1 = \frac{1}{2}g(3)^2 = 45 \text{ m}$$

$$h_2 = H - h_1 = 80 \text{ m}$$

$$\text{But } h_2 = \frac{1}{2}g(t_1 - 3)^2$$

$$\text{So, } 80 = \frac{1}{2}(10)(t_1 - 3)^2$$

$$\Rightarrow t_1 - 3 = 4 \Rightarrow t_1 = 7 \text{ s}$$

20. Ans (1)

$$S = t^3 - 3t^2 + 2$$

$$v = 3t^2 - 6t$$

$$a = 6t - 6 = 0$$

$$t = 1 \text{ sec}$$

$$s(t = 1) = (1)^3 - 3(1)^2 + 2 = 0$$

21. Ans (3)

$$a = \frac{u \frac{dM}{dt}}{M_0 - t \frac{dM}{dt}} = \frac{5000 \times 10}{1500 - 500} = \frac{5000 \times 10}{1000} = 50 \text{ m/s}^2$$

22. Ans (4)

$$\text{Linear Momentum } p = (3t^2 - 4t + 6) \text{ kg m/s}$$

$$\text{Initial Momentum (at } t = 0)$$

$$\Rightarrow p_i = 3(0)^2 - 4(0) + 6 = 6 \text{ kg m/s}$$

$$\text{Final Momentum (at } t = 2)$$

$$\Rightarrow p_f = 3(2)^2 - 4(2) + 6 = 10 \text{ kg m/s}$$

$$\text{So Average force } F_{avg} = \frac{\Delta p}{\Delta t} = \frac{p_f - p_i}{t_f - t_i}$$

$$= \frac{10 - 6}{2 - 0} = \frac{4}{2} = 2 \text{ Newton}$$

23. Ans (3)

$$\text{If body is stationary } \vec{F}_{net} = \vec{0}$$

24. Ans (3)

$$T = F \left(1 - \frac{x}{L}\right) = 5 \left(1 - \frac{1}{5}\right)$$

$$T = 5 \times \frac{4}{5} = 4 \text{ N}$$

26. Ans (4)

Contact force and weight cancel each other.

27. Ans (4)

$$a_1 = g \sin \theta = g/\sqrt{2}$$

$$a_2 = g \sin \theta - k g \cos \theta = \frac{g}{\sqrt{2}} - \frac{k g}{\sqrt{2}}$$

$$t_2 = n t_1 \& a_1 t_1^2 = a_2 t_2^2$$

$$\frac{g}{\sqrt{2}} t_1^2 = \left(\frac{g}{\sqrt{2}} - \frac{k g}{\sqrt{2}} \right) n^2 t_1^2$$

$$k = 1 - \frac{1}{n^2}$$

28. Ans (3)

$$F = 0.3 \times 300 \text{ g} + 0.2 \times 100 \text{ g}$$

$$= 900 + 200$$

$$= 1100 \text{ N}$$

29. Ans (4)

$$\left(\frac{dm}{dt} \right)' = n^2 \left(\frac{dm}{dt} \right)$$

$$\rho A v' = n^2 (\rho A v)$$

$$v' = n^2 v$$

$$\therefore P = \rho A v^3$$

$$\text{Now, } P' = \rho A v'^3$$

$$P' = \rho A n^6 v^3$$

$$P' = n^6 (\rho A v^3)$$

$$P' = n^6 P$$

So, the power of motor should be increased n^6 times.

30. Ans (4)

$$\text{Net work done} = KE_f - KE_i$$

$$(F)(5)(-1) = \frac{1}{2}m\left(\frac{v}{2}\right)^2 - \frac{1}{2}mv^2$$

$$-F \times 5 = \frac{1}{2}mv^2 \left(\frac{-3}{4}\right) \dots (i)$$

$$(F)(x)(-1) = 0 - \frac{1}{2}m\left(\frac{v}{2}\right)^2$$

$$-F(x) = -\frac{1}{2}mv^2 \left(\frac{1}{4}\right) \dots (ii)$$

by eq. (i) ÷ (ii)

$$\Rightarrow \frac{5}{x} = 3 \Rightarrow x = \frac{5}{3} \text{ cm}$$

31. Ans (2)

By COME : loss in gravitation PE = gain in spring PE

$$5 \times 10 \times 10 = \frac{1}{2} \times (40)x^2$$

$$x^2 = 25$$

$$x = 5 \text{ m}$$

32. Ans (2)

$$W = \frac{1}{2}k[x_f^2 - x_i^2]$$

$$W = \frac{1}{2} \times 800 \left[\left(\frac{15}{100}\right)^2 - \left(\frac{5}{100}\right)^2 \right]$$

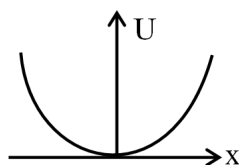
$$W = \frac{1}{2} \times 800 \times \frac{2}{100} = 8 \text{ J}$$

33. Ans (1)

$$U = \frac{1}{2}kx^2$$

$$U \propto x^2$$

⇒ parabolic curve



34. Ans (3)

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

$$\sqrt{E} \propto p, X \propto \frac{1}{p}$$

⇒ graph between \sqrt{E} & $\frac{1}{p}$ is rectangular hyperbola.

35. Ans (2)

$$W = \int F dx$$

$$W = \int_0^2 (1x + 1x^2) dx$$

$$W = \left[\frac{x^2}{2} + \frac{x^3}{3} \right]_0^2$$

$$W = \left(\frac{4}{2} + \frac{8}{3} \right) - (0)$$

$$= 2 + \frac{8}{3} = \frac{14}{3} \text{ Joule}$$

SECTION - B

36. Ans (4)

$$n_1 u_1 = n_2 u_2$$

$$1 M_1 L_1^{-1} T_1^{-2} = n_2 M_2 L_2^{-1} T_2^{-2}$$

$$n_2 = \left[\frac{1}{4} \right]^1 \left[\frac{1}{10} \right]^{-1} \left[\frac{1}{1} \right]^{-2} = \frac{5}{2}$$

37. Ans (4)

Addition/subtraction or exp/log or trigonometric terms cannot be revealed using dimensional analysis.

39. Ans (2)

$$\text{MSD} = 0.05 \text{ cm}, \text{VSD} = \frac{2.45}{50}$$

$$\text{Vernier constant} = 1 \text{ MSD} - 1 \text{ VSD}$$

$$= \frac{1}{50} \text{ MSD (where 1 MSD = 0.5 mm)}$$

$$\text{LC} = \frac{1}{50} \times \frac{1}{2} \text{ mm} = \frac{1}{100} \text{ mm} = 0.001 \text{ cm}$$

$$\text{Reading} = 5.10 + \text{VC} \times 24 = 5.10 + 0.024 = 5.124 \text{ cm}$$

40. Ans (2)

Given that,

$$25 \text{ VSD} = 24 \text{ MSD}$$

$$\text{or, } 1 \text{ VSD} = \frac{24}{25} \text{ MSD}$$

$$\text{or, } 1 \text{ VSD} = 0.96 \text{ MSD}$$

Now, least count of vernier calipers, is $\text{LC} = 1$

$$\text{MSD} - 1 \text{ VSD}$$

$$\text{or, LC} = 0.04 \text{ MSD}$$

1 cm is divided into 20 parts. Hence, 1 main

$$\text{scale division is } \frac{1}{20} \text{ cm} = \frac{1}{2} \text{ mm}$$

$$\text{Using this, LC} = \frac{0.04}{2}$$

or, $\text{LC} = 0.02 \text{ mm}$ is our required least count.

41. Ans (2)

$$R = 3 \times 1 \text{ mm} + 25 \times 0.01 \text{ mm}$$

$$R = 3 \text{ mm} + 0.25 \text{ mm} = 3.25 \text{ mm}$$

42. Ans (1)

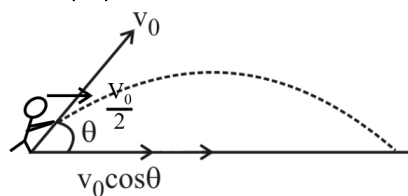
$$\text{Pitch} = \frac{P \text{ mm}}{N}$$

$$\text{LC} = \frac{\text{Pitch}}{\text{No. of division}}$$

$$\text{LC} = \frac{P}{N(100)} \text{ mm}$$

$$\text{Reading} = \frac{2P}{N} \text{ mm} + \frac{45P}{100N} \text{ mm}$$

43. Ans (1)



To catch the ball, person speed $\left(\frac{v_0}{2}\right)$ should be exactly equal to the horizontal component of velocity of ball ($v_0 \cos \theta$).

$$\therefore v_0 \cos \theta = v_0/2$$

$$\Rightarrow \cos \theta = 1/2 \Rightarrow \theta = 60^\circ$$

44. Ans (3)

Because time of flight only depends on the vertical component of velocity.

45. Ans (3)

For $0 < x < 100$

$$v = kx$$

$$\text{We know, } a = \frac{v dv}{dx} = kx \times \frac{d(kx)}{dx}$$

$$\therefore a = k^2 x \Rightarrow [a \propto x]$$

for, $100 < x < 200$,

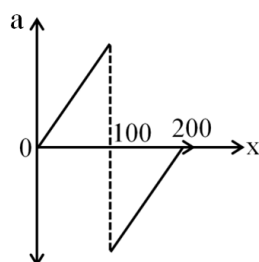
$v = -kx + x_0$ (velocity is decreasing with distance)

$$a = \frac{v dv}{dx} = (-kx + x_0) \frac{d(-kx + x_0)}{dx}$$

$$a = -k(-kx + x_0)$$

$$a = k^2 x - kx_0 \Rightarrow [a \propto x]$$

Since velocity is decreasing with distance for $100 < x < 200$, acceleration is negative for this range.



46. Ans (2)

$$\text{Let } m_1 = m ; m_2 = M;$$

given : $m \ll M$;

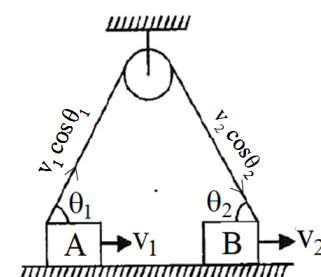
$$\therefore T = \frac{2m_1 m_2 g}{m_1 + m_2} = \frac{2mMg}{M \left(1 + \frac{m}{M}\right)}$$

$$\therefore T = 2mg$$

$$\therefore \frac{m}{M} \approx 0$$

47. Ans (3)

Speed along the string at every point is same.



$$v_1 \cos \theta_1 = v_2 \cos \theta_2$$

$$\frac{v_1}{v_2} = \frac{\cos \theta_2}{\cos \theta_1}$$

48. Ans (3)

$$F \propto S^{1/3}$$

$$m \left(v \frac{dv}{ds} \right) \propto S^{1/3}$$

$$v^2 \propto S^{4/3}$$

$$v \propto S^{2/3}$$

$$P = FV$$

$$P \propto (S^{1/3}) S^{2/3}$$

$$\boxed{P \propto S^1}$$

49. Ans (2)

$$(A) \text{ Area} = ax = \frac{v^2 - 4^2}{2}$$

$$\frac{v^2 - 4^2}{2} = 2 \times 4 + \frac{1}{2} 4 \times 2$$

$$v^2 = 40 \quad (1)$$

$$\therefore \text{K.E} = \frac{1}{2} \times 1 \times 40 = 20 \text{ J}$$

$$(B) W_C = -\Delta U = -[(-120) - (120)]$$

$$= 240 \text{ J}$$

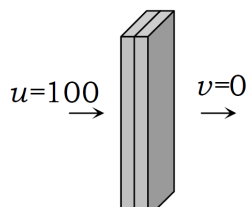
$$(C) W = \Delta \text{K.E} =$$

$$\frac{1}{2} m (v^2 - u^2) = \frac{1}{2} \times (40 - 16) = 12 \text{ J}$$

$$(D) W_{\text{Ext}} = \Delta \text{K.E} - W_C = 12 - 240$$

$$= -228 \text{ J}$$

50. Ans (2)



$$F \times 2S = \frac{1}{2}mu^2$$

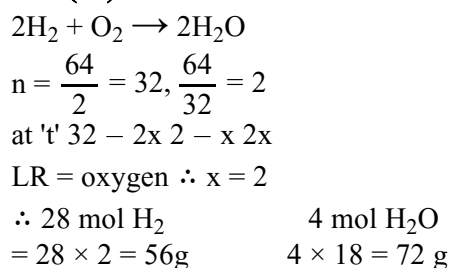
$$F \times ns = \frac{1}{2}m(2u)^2$$

$$\frac{2}{n} = \frac{1}{4} \Rightarrow n = 8$$

SUBJECT : CHEMISTRY

SECTION - A

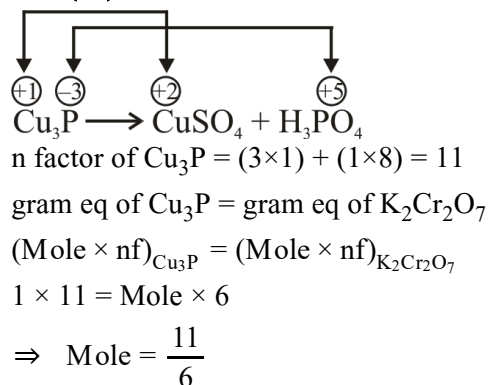
54. Ans (2)



57. Ans (1)

NCERT-XI, Pg. # 244, Part-1
Disproportionation reaction is that redox reaction in which same element is getting oxidized as well as reduced simultaneously.

59. Ans (1)



63. Ans (3)

$$\Delta n_g = +ve$$

64. Ans (3)

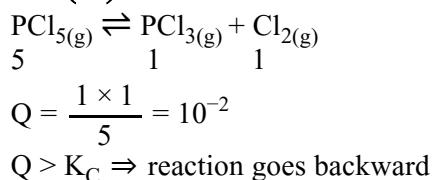
$$K_p = K_c \times RT \quad \dots (i)$$

$$K_p = 2 \times K_c \quad \dots (ii)$$

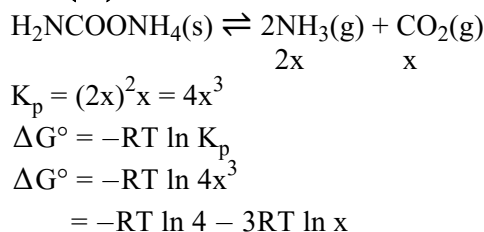
$$RT = 2$$

$$\Rightarrow T = \frac{2}{R} = \frac{2}{0.0821} = 2 \times 12.18 = 24.36 \text{ K}$$

66. Ans (2)



71. Ans (4)



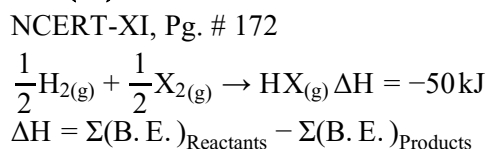
75. Ans (3)

$$W = -P(V_2 - V_1) = -0.6(0.3 - 0.5)$$

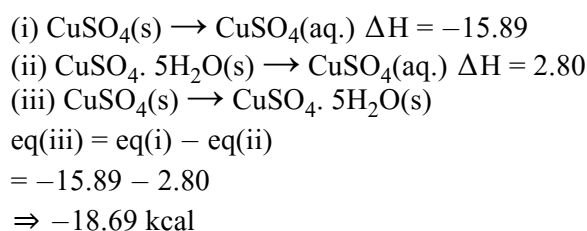
$$= 0.12 \text{ L-atm} = 12.156 \text{ J}$$

$$\Delta E = W + Q = 12.156 - 10 = 2.156 \text{ J}$$

76. Ans (1)



77. Ans (1)



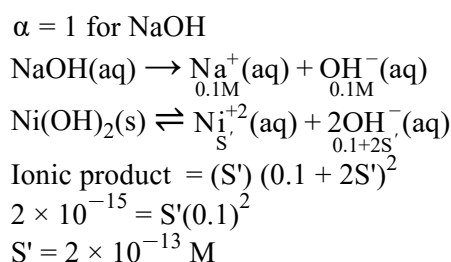
79. Ans (3)

Liquid is more stable have more attraction force
So in case of liquid formation more heat is release So Q_2 is more than Q_1

80. Ans (4)

$$WA + SB \Rightarrow \text{pH range} \Rightarrow 7-11 \Rightarrow \text{HPh}$$

84. Ans (2)



SECTION - B

88. Ans (1)

NCERT Pg. # 15

90. **Ans (1)**
 $\text{IO}_3^- + 5\text{I}^- + 6\text{H}^+ \rightarrow 3\text{H}_2\text{O} + 3\text{I}_2$
92. **Ans (2)**
 Smaller the value of dissociation constant, stable will be the reactant.
94. **Ans (1)**
 $w = -2.303 nRT \log_{10} \frac{V_2}{V_1}$
96. **Ans (2)**
 $\text{A(g)} + 2\text{B(g)} \rightarrow \text{C(g)}$
 $\Delta n_g = 1 - 3 = -2$
 $\Delta H = \Delta U + \Delta n_g RT$
 $= -10 + \frac{(-2) \times 2 \times 500}{1000} = -12 \text{ kcal}$
 $\Delta G = \Delta H - T\Delta S$
 $\Delta G = -12 - \frac{500 \times (-20)}{1000}$
 $= -12 + 10 = -2 \text{ kcal/mol}$
99. **Ans (3)**
 For ppt ($Q_{\text{SP}} > K_{\text{SP}}$)
 $\text{BaF}_{2(\text{s})} \rightleftharpoons \text{Ba}^{+2} + 2\text{F}^-$
 $S \quad 0.3$
 $K_{\text{sp}} = [\text{Ba}^{+2}] [\text{F}^-]^2$
 $1 \times 10^{-6} = S \times (0.3)^2$
 $[\text{Ba}^{+2}] \Rightarrow S = 1.1 \times 10^{-5}$

SUBJECT : BOTANY**SECTION - A**

101. **Ans (1)**
 NCERT-XI, Pg # 8
102. **Ans (2)**
 NCERT-XI, Pg. # 8
103. **Ans (2)**
 NCERT-XI, Pg. # 6 & 7
104. **Ans (1)**
 NCERT Pg # 5, 8
105. **Ans (3)**
 NCERT Pg.# 8
106. **Ans (2)**
 NCERT XI Pg.# 10, 11
107. **Ans (4)**
 NCERT-XI, Pg # 11
108. **Ans (3)**
 NCERT XI, Pg # 15

109. **Ans (2)**
 NCERT-XI, Page # 20
110. **Ans (1)**
 NCERT XI, Pg # 17,18
111. **Ans (1)**
 NCERT Pg # 16
112. **Ans (2)**
 NCERT-XI, Pg. # 20, 21
113. **Ans (4)**
 NCERT Pg. # 15
114. **Ans (4)**
 NCERT Pg. # 18
115. **Ans (4)**
 NCERT Pg. # 91
116. **Ans (3)**
 NCERT Pg. # 91
117. **Ans (1)**
 NCERT-XI, Pg. # 14
118. **Ans (4)**
 NCERT-XI, Pg. # 15 & 16
119. **Ans (3)**
 NCERT, Pg. # 28
120. **Ans (2)**
 NCERT-XI, Pg # 27,28
121. **Ans (4)**
 NCERT XI Page # 27,28
122. **Ans (1)**
 NCERT-XI, Pg # 24,29,30,32
123. **Ans (2)**
 NCERT XI Pg. # 30
124. **Ans (2)**
 NCERT Pg. # 28
125. **Ans (3)**
 NCERT Pg. # 30, 32
126. **Ans (2)**
 NCERT-XII Pg#32,33
127. **Ans (1)**
 NCERT XI Page No. # 32
128. **Ans (2)**
 NCERT Pg. # 30
129. **Ans (1)**
 NCERT-XI, Page # 33
130. **Ans (2)**
 NCERT, Pg # 32,33

131. **Ans (3)**
NCERT-XI Pg. # 32,33
132. **Ans (4)**
NCERT Page # 32
133. **Ans (3)**
NCERT page No. # 32,33
134. **Ans (1)**
NCERT XI Pg # 32,33
135. **Ans (1)**
NCERT-XI, Pg # 29,30,33

SECTION - B

136. **Ans (2)**
NCERT-XI, Pg. # 3, 4, 5 (old)
137. **Ans (3)**
NCERT Page No. 23
138. **Ans (3)**
NCERT-XI, Pg # 13
139. **Ans (4)**
NCERT XI Pg # 18
140. **Ans (3)**
NCERT-XII, Pg. # 14-16
141. **Ans (4)**
NCERT, Pg. # 20
142. **Ans (2)**
NCERT Pg. # 17,18
143. **Ans (3)**
NCERT-XI, Pg. # 17
144. **Ans (3)**
NCERT-XI, Pg. # 15
145. **Ans (3)**
NCERT XI, Pg # 27
146. **Ans (3)**
NCERT XI, Pg # 27
147. **Ans (4)**
NCERT-XI Pg. # 25,33
Red Algae
148. **Ans (3)**
NCERT Pg. # 30,36
149. **Ans (3)**
NCERT, Pg. # 29,30,32
150. **Ans (2)**
NCERT XI Pg. # 32

SUBJECT : ZOOLOGY

SECTION - A

162. **Ans (2)**
NCERT XI, Pg # 58 to 60
164. **Ans (4)**
NCERT, Pg # 49,50
165. **Ans (3)**
NCERT, Pg # 46, 48
167. **Ans (2)**
NCERT, Pg # 8
169. **Ans (2)**
NCERT Pg. # 80
170. **Ans (3)**
NCERT Pg. # 117-119
173. **Ans (1)**
NCERT-XI, Pg # 101
175. **Ans (1)**
NCERT Pg. # 40,41,42
176. **Ans (2)**
NCERT-XI, Pg. # 49-50
182. **Ans (2)**
NCERT-XII, Pg. # 119
185. **Ans (4)**
NCERT Pg. # 79,80

SECTION - B

187. **Ans (3)**
NCERT Pg.# 113
188. **Ans (2)**
NCERT-XII, Pg. # 114
192. **Ans (2)**
NCERT-XII, Pg. # 40
193. **Ans (2)**
NCERT Pg.#56
196. **Ans (3)**
Module
197. **Ans (2)**
NCERT XI Pg # 101, Para 7.1.1,
Fig. 7.1 (a), (b), (c) and (d)
198. **Ans (1)**
NCERT Pg. # 114