

# **CLASSROOM CONTACT PROGRAMME**

(Academic Session: 2024 - 2025)

# **LEADER & ACHIEVER COURSE**

PHASE: MLA, MAZA, MAZB, MAZC, MAZD, MAZL, MAZN, MAZO, MAAX, MAAY,

MAPA, MAPB, LAKSHYA

**TARGET: PRE MEDICAL 2025** 

Test Type: MAJOR Test Pattern: NEET (UG)

TEST DATE: 11-03-2025

# **ANSWER KEY**

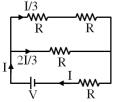
														_																
Q.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A.	3	4	1	2	1	1	1	2	3	3	2	2	3	3	2	3	2	3	3	1	4	1	2	1	2	2	3	3	3	4
Q.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A.	3	1	4	3	1	1	2	2	3	3	3	1	1	2	2	2	1	4	1	2	2	3	2	1	1	1	2	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.	1	1	3	2	1	1	3	2	2	1	1	1	1	1	3	4	3	2	2	4	2	2	3	1	1	3	2	3	1	4
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.	1	3	2	1	1	1	4	4	4	1	2	2	4	4	2	3	1	1	2	2	1	3	3	2	1	4	2	3	3	3
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	1	4	1	1	4	4	2	2	2	2	3	1	3	2	3	3	2	3	3	2	2	3	2	4	4	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.	4	2	4	4	4	1	3	1	1	2	2	3	4	2	1	1	2	3	3	2	1	4	2	4	3	3	3	2	4	4

# HINT - SHEET

## 1. Ans (3)

Slope of I-V graph represents reciprocal of resistance. For CD Region, it is negative.

#### 2. Ans (4)

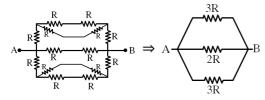


Brightness  $\propto I^2 R$ .

So,  $B_3 > B_4 > B_1 = B_2$ .

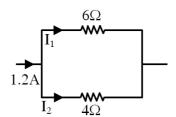
# 3. Ans (1)

Apply I<sup>st</sup> symmetry, then balanced bridge.



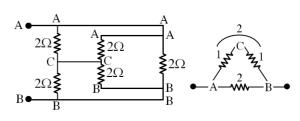
$$R_{AB} = \frac{6R}{7}$$

4. Ans (2)



$$I_1 = \left(\frac{4}{6+4}\right) 1.2 = 0.48A$$

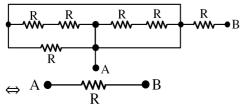
#### 5. Ans (1)



$$R_{AB} = \frac{2 \times 2}{2 + 2} = 1 \Omega$$

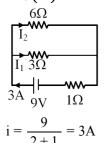
# 6. Ans (1)

The circuit given in question can be reduced to:



$$R_{AB} = R$$

### 7. Ans (1)



$$I_1 = \left(\frac{6}{6+3}\right)3 = 2A$$

# 8. Ans (2)



For max Power,  $R = \frac{r}{2} = \frac{2}{2} = 1 \Omega$ 

$$I = \frac{6}{1+1} = 3A$$

$$P = 3^{2} \times 1 = 9W$$

#### 9. Ans (3)

$$J \propto \frac{1}{A} \Rightarrow J_1 > J_2,$$

$$E \propto \frac{1}{A} \Rightarrow E_1 > E_2,$$

$$V_d \propto \frac{1}{A} \Rightarrow V_{d_1} > V_{d_2}$$

#### 10. Ans (3)

$$R_T = R_0 (1 + \alpha T)$$

$$3 = 1[1 + \alpha(200)]$$

$$200\alpha = 2$$

$$\alpha = \frac{1}{100} \text{per}^{\circ} C$$

#### 11. Ans (2)

Slope of V-I represent 'R'

$$R = \frac{V}{I} = \frac{50V}{5mA} = 10k\Omega$$

# 12. Ans (2)

$$R \propto \frac{\ell}{A}$$

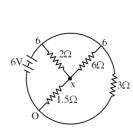
$$\therefore \frac{R}{R'} = \frac{\ell}{A} \times \frac{(A/n)}{n\ell} \Rightarrow R' = n^2 R$$

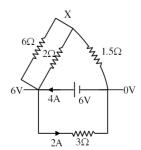
Volume of wire is constant, so

$$R \propto \ell^2$$

$$\therefore \frac{R'}{R} = \frac{(n\ell)^2}{\ell^2} = n^2 \Rightarrow R' = n^2 R$$

# 13. Ans (3)

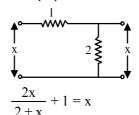




$$R_{eq} = 1.5$$

$$I = \frac{6}{1.5} = 4A$$

#### 14. Ans (3)



$$2x + 2 + x = 2x + x^2$$

$$x^2 - x - 2 = 0$$

$$x = \frac{1 \pm \sqrt{1+8}}{2} \Rightarrow x = 2, -1$$

So, 
$$R_{eq} = 2\Omega$$

#### 15. Ans (2)

Without battery displacement is zero. So, average velocity is zero, but average speed is non-zero as it travel distance. Path of electrons is parabolic and it may be straight line.

# 16. Ans (3)

$$\mu = \frac{v_d}{E} = \frac{7.5 \times 10^{-4}}{3 \times 10^{-10}}$$
$$= 2.5 \times 10^6 \text{ m}^2 \text{ V}^{-1} \text{ s}^{-1}$$

# **ALLEN®**

# LEADER & ACHIEVER COURSE/PHASE-MLA, MAZA, MAZB, MAZC, MAZD, MAZL, MAZN, MAZO, MAAX, MAAY, MAPA, MAPB, LAKSHYA/11-03-2025

#### 17. Ans (2)

$$\frac{i}{10}G = \frac{9i}{10}S$$

$$S = \frac{G}{9}$$

$$R_A = \frac{G \times G/9}{G + G/9} = \frac{G}{10}$$

# 18. Ans (3)

 $R \propto \ell^2$  (: Volume of wire is constant)

$$\frac{5}{R} = \left(\frac{20}{40}\right)^2 = \frac{1}{4}$$

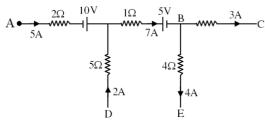
$$R = 20 \Omega$$

# 19. Ans (3)

For parallel combination of bulbs,

$$P_C \propto \frac{1}{R} \propto \frac{P_R}{V_R^2} \quad (V_R \rightarrow \text{same})$$
  
So,  $P_C \propto P_R$ 

# 20. Ans (1)



$$V_A - 10 + 10 - 7 - 5 = V_B$$
  
 $V_A - V_B = 12 \text{ V}$ 

#### 21. Ans (4)

 $y \rightarrow 0$  (tends to zero)

Flux through hemispherical surface

$$= \frac{1}{2} \times \text{flux through spherical surface.}$$
$$= \frac{1}{2} \times \frac{q}{\epsilon_0}$$

#### 22. Ans (1)

Charge on 90 kg of electron = 
$$\frac{e}{m} \times 90$$
  
= 1.76 × 10<sup>11</sup> × 90  
= 1.58 × 10<sup>13</sup>

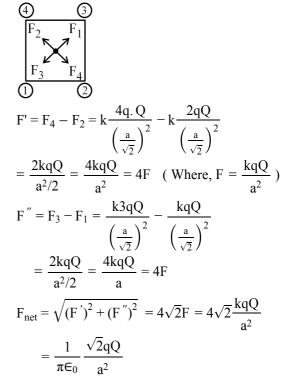
#### 23. Ans (2)

$$F = f$$

$$\frac{1}{4\pi\epsilon_0} \frac{q^2}{r^2} = \mu mg$$

$$r = \left[ \frac{1}{4\pi\epsilon_0} \frac{q^2}{\mu mg} \right]^{1/2}$$

#### 24. Ans (1)



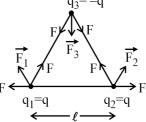
# 25. Ans (2)

$$F = 9 \times 10^9 \times \frac{(10^{-6})^2}{10^{-4}} = 90 \text{ N}$$

#### 26. Ans (2)

$$|\overrightarrow{F_1}| = |\overrightarrow{F_2}| = |\overrightarrow{F_3}| = F = \frac{kq^2}{\ell^2}$$

$$q_3 = -q$$



#### 27. Ans (3)

$$F = \frac{kq_1q_2}{r^2}$$
$$F \propto \frac{1}{r^2}$$

$$\phi = E A \cos \theta$$

$$(\cos 0)_{max} = 1$$

$$U = -PE \cos \theta$$

$$U = -PE \cos \frac{\pi}{2} = 0$$

# 34. Ans (3)

$$dV = -\overrightarrow{E} \cdot \overrightarrow{dr}$$

$$\int_{V_a}^{V_b} dV = -\frac{\lambda}{2\pi\epsilon_0} \int_a^b \frac{1}{r} dr$$

$$V_b - V_a = -\frac{\lambda}{2\pi\epsilon_0} [\log_e b - \log_e a]$$

$$V_a - V_b = \frac{\lambda}{2\pi\epsilon_0} \log_e \left(\frac{b}{a}\right)$$

#### 35. Ans (1)

$$\vec{E} = \frac{\partial V}{\partial x} \hat{i} - \frac{\partial V}{\partial y} \hat{j} - \frac{\partial V}{\partial z} \hat{k}$$

$$V_{C} = \frac{1}{4\pi\epsilon_{0}} \frac{Q}{r_{2}} + \frac{1}{4\pi\epsilon_{0}} \frac{q}{r}$$

# 39. Ans (3)

$$W = U_{12} + U_{23} + U_{31} = \frac{3kq^2}{r}$$
$$= \frac{3 \times 9 \times 10^9 \times 1.6 \times 10^{-19}}{10^{-10}} \text{ eV } \approx 43 \text{ eV}$$

#### 40. Ans (3)

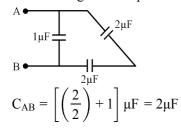
$$V = \frac{kq}{r}$$

$$\frac{V_1}{V_2} = \frac{r_2}{r_1} \implies V_2 = V_1 \frac{r_1}{r_2}$$

$$= 16 \frac{r}{2r} = 8 \text{ volt}$$

#### 41. Ans (3)

The circuit given in equation can be reduced to:



#### 42. Ans (1)

$$C = \frac{\varepsilon_0 A}{d}$$

$$C_{eq} = \frac{2C \cdot C}{2C + C} = \frac{2}{3}C = \frac{2}{3}\frac{\varepsilon_0 A}{d}$$

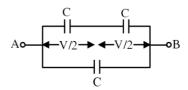
#### 43. Ans (1)

$$C = \frac{K \epsilon_0 A}{d} \Rightarrow C' = \frac{(3K)\epsilon_0 A}{(d/2)} = 6C$$

# 44. Ans (2)

$$C_{eq} = \frac{8}{5} \mu F \Rightarrow U = \frac{1}{2} \cdot CV^2 = \frac{1}{2} \times \frac{8}{5} \times (15)^2$$
  
= 180 × 10<sup>-6</sup> J = 1800 ergs

#### 45. Ans (2)



# 46. Ans (2)

Compare rates when [A] doubles  $(4 \times faster) \rightarrow$  order w.r.t A is 2.

When [B] doubles  $(2 \times \text{faster}) \longrightarrow \text{order w.r.t B}$  is 1. Calculate k using rate =  $k[A]^2[B]$ 

# 47. Ans (1)

For first-order reaction, t = (2.303/k)log[1/(1-x)]. For 93.75% completion, x = 0.9375. Plug in  $k = 0.0231 \text{ min}^{-1}$ .

#### 48. Ans (4)

$$E = E^{\circ} - (0.0591/n)\log([H^{+}]^{2}/[Cu^{2+}])$$
  
= 0.34 - (0.0591/2)log[(0.01)^{2}/0.1] = 0.43V

#### 49. Ans (1)

For concentration cell,  $E = (RT/nF)ln(C_2/C_1)$ . When T doubles, potential doubles as other terms remain constant.

#### 50. Ans (2)

Cathode:  $2H^+ + 2e^- \rightarrow H_2$ Anode:  $2H_2O \rightarrow O_2 + 4H^+ + 4e^-$ Volume ratio follows mole ratio & gm equivalents are same

#### 51. Ans (2)

 $\Delta Tf = iKf \times m \times (w_2/M_2) \ 2.79 = i \times 1.86 \times (0.5/2)$  Solve for i.

#### 52. Ans (3)

For n<sup>th</sup> order,  $t_{1/2} \propto [A_0]^{1-n}$   $20/5 = (0.4/0.1)^{1-n}$ Solve for n = 2.

#### 53. Ans (2)

When [A] doubles  $\rightarrow$  rate doubles, when [B] doubles  $\rightarrow$  rate increases 4 times. Overall rate increases 8 times. Initial rate =  $8.0 \times 10^{-4}$  M/s New rate =  $8 \times (8.0 \times 10^{-4}) = 6.4 \times 10^{-3}$  M/s

#### 54. Ans (1)

$$\begin{split} E &= E^{\circ} + (0.0591/n)log([Ag^{+}]^{2}/[Zn^{2+}])1.65 = \\ &(E^{\circ}Ag^{+}/Ag - E^{\circ}Zn^{2+}/Zn) + (0.0591/2)log(0.01/0.1) \\ Solve for & E^{\circ}Zn^{2+}/Zn \end{split}$$

#### 55. Ans (1)

$$K_4[Fe(CN)_6] \longrightarrow 4K^+ + [Fe(CN)_6]^{4-}$$
 (5 particles)  
 $i = 1 + (n - 1)\alpha = 1 + (5 - 1)0.9 = 4.6$ 

#### 56. Ans (1)

Use Kohlrausch's law  $\lambda \infty (CH_3COOH) = \lambda \infty (HCl) + \lambda \infty (CH_3COONa) - \lambda \infty (NaCl)$ 

# 57. Ans (2)

Temperature increase raises kinetic energy of particles, leading to more effective collisions.

#### 58. Ans (3)

$$\Delta Tf = Kf(n_1 + n_2)/w$$
  
 $0.93 = 1.86(x/60 + x/180)/0.1$   
where x is mass of each solute

#### 59. Ans (3)

A higher conc. of acid / base leads to more heat released per unit volume of reaction mixture & vice-versa.

#### 60. Ans (3)

At Cu anode:  $Cu \rightarrow Cu^{2+} + 2e^{-}$ At Cu cathode:  $Cu^{2+} + 2e^{-} \rightarrow Cu$ Net change in  $[Cu^{2+}] = 0$  as dissolution equals deposition

#### 61. Ans (1)

Molality = 
$$\frac{\text{(mass of solute/molar mass)}}{\text{(mass of solvent in kg)}}$$
  
=  $\frac{1.8/180}{0.1}$  = 0.1 m

# 62. Ans (1)

At anode:  $2H_2O \rightarrow O_2 + 4H^+ + 4e^-$ The production of  $H^+$  ions at anode directly leads to decrease in pH near anode region.

#### 63. Ans (3)

Conductivity ( $\kappa$ ) decreases on dilution due to fewer ions per unit volume, while molar conductivity ( $\lambda m$ ) increases due to reduced inter-ionic interactions.

#### 64. Ans (2)

For first order reaction,  $t_{99}\% = 6.65t_{50}\%$  (not  $2t_{50}\%$ ). Half-life is independent of initial concentration as  $t_{1/2} = 0.693/k$ .

#### 66. Ans (1)

- Chemical kinetics is study of reaction rates
- Zero-order reaction rate is independent of concentration
- Second-order reaction rate depends on square of concentration
- Activation energy appears in Arrhenius equation

#### 67. Ans (3)

All statements are correct for Daniell cell:

- Electrons flow from anode (Zn) to cathode (Cu)
- Cu<sup>2+</sup> reduction occurs at cathode
- Zn oxidation at anode decreases its mass
- Higher [Zn<sup>2+</sup>] decreases cell potential (Nernst equation)
- Salt bridge maintains charge balance

#### 68. Ans (2)

$$S \times m \times \Delta T = -\Delta H \times n$$
$$4.18 \times 100 \times 5.5 = -\Delta H \times 0.1$$
$$\Delta H = -23.00 \text{ kJ/mol}$$

#### 69. Ans (2)

For zero-order, time is directly proportional to percentage decomposition 20% in 20 min  $\rightarrow$ 60% will take  $\frac{60}{20} \times 20 = 60$  minutes

#### 70. Ans (1)

EMF depends only on concentration difference, and higher concentration metal electrode acts as cathode

#### 71. Ans (1)

Based on mathematical derivation of half-life expressions for different orders

#### 72. Ans (1)

D is false (depend on number not nature), E is false (only at low pressures)

#### 73. Ans (1)

 $N_2 + 3H_2 \rightleftharpoons 2NH_3$ rate of reaction is given as  $-\frac{d[N_2]}{dt} = -\frac{1}{3} \frac{[H_2]}{dt} = +\frac{1}{2} \frac{[NH_3]}{dt}$ 

#### 74. Ans (1)

Order = 1 + 2 = 3

#### 75. Ans (3)

Catalyst is used to decrease the activation energy so as to increase the rate of reaction.

# 76. Ans (4)

Class - XII<sup>th</sup>, NCERT

Chemical kinetic

Arrhenius equation

fig. 4.9

# 77. Ans (3)

Number of moles  $\times$  V.F. =  $\frac{Q}{F}$ 

V.F. = Change in O.N. of Mn

$$1 \times 5 = \frac{Q}{96500}$$

$$Q = 482500 \text{ C}$$

$$= 4.83 \times 10^5 \text{ C}$$

#### 78. Ans (2)

$$\begin{split} \frac{W_1}{W_2} &= \frac{Q_1}{Q_2} \\ \frac{W_1}{W_2} &= \frac{I_1 \times t_1}{I_2 \times t_2} \\ \frac{m}{W_2} &= \frac{4 \times 2 \times 60}{6 \times 40} \\ W_2 &= \frac{m}{2} g \end{split}$$

# 79. Ans (2)

At Cathode

$$2H_2O_{(\ell)} + 2e^- \rightarrow H_2 + 2OH^-$$
;  $E^{\circ}_{RP} = -0.828 \text{ V}$   
 $e^- + Na^+_{(aq)} \rightarrow Na_{(s)}$ ;  $E^{\circ}_{RP} = -2.71 \text{ V}$   
 $\therefore H_2 \text{ will be liberated}$ 

#### 80. Ans (4)

$$C_5H_{12} \rightarrow CO_2$$
  
V.F.=  $\left\{4 - \left(\frac{-12}{5}\right)\right\} \times 5$   
= 32

$$(eq.)_{C_5H_{12}} = mol \times V.F.$$
  
= 1 × 32

Hence 32 faraday charge is required.

#### 81. Ans (2)

Same amount of electricity (charge) will deposit same equivalents of metal.

By 1F charge, deposited iron in -

(i) 
$$FeSO_4$$
 solution  $\Rightarrow \frac{56}{2} = 28g$ 

(ii) Fe(NO<sub>3</sub>)<sub>3</sub> solution 
$$\Rightarrow \frac{56}{3} = 18.66g$$

(iii) 
$$Fe_2(SO_4)_3$$
 solution  $\Rightarrow \frac{56}{3} = 18.66g$ 

# 82. Ans (2)

Since solubility of gas decrease with increasing K<sub>H</sub>.

#### 83. Ans (3)

Raoult's law is followed by ideal solution.

#### 84. Ans (1)

The vapour pressure of a solution is proportional to the mole fraction of the solvent.

#### 85. Ans (1)

As per definition

#### 86. Ans (3)

At maximum boiling point composition, vapour pressure of solution will be minimum.

#### 87. Ans (2)

The one which shows negative deviation from raoults law form maximum boiling azeotropes.

#### 88. Ans (3)

From slow step  $r = k_3(Q)^2(P)$  ...(i) from reversible step  $k_c = \frac{k_1}{k_2} = \frac{(Q)^2}{(P)}$  ...(ii) from (i) & (ii)  $r = k_3$ .  $\frac{k_1}{k_2}(P)^2$ 

# 89. Ans (1)

$$r_{\text{new}} = r_{\text{old}} \times \mu^{\Delta T/10}$$
  
 $\Delta T = 55 - 25 = 30$ 

# 90. Ans (4)

$$C_{12}H_{22}O_{11} + H_2O \xrightarrow{H^+} C_6H_{12}O_6 + C_6H_{12}O_6$$
  
 $r = k[C_{12}H_{22}O_{11}] [H_2O]$   
 $[H_2O] = excess$   
 $r = k[C_{12}H_{22}O_{11}]$ 

# 91. Ans (1)

NCERT-XII, 15

#### 92. Ans (3) NCERT (XII) Pg # 6, 9

93. Ans (2)

# NCERT XII Pg. # 8

**94. Ans (1)** NCERT XII Pg. # 7, 10

- **97. Ans (4)** NCERT XII Page No. 20
- 98. Ans (4) NCERT XII, Pg. # 20
- **99. Ans (4)** NCERT XII, Page No. 7
- **100. Ans (1)** NCERT XII Pg. # 13
- **101. Ans (2)** NCERT XII Pg. # 13, 18, 20
- **102. Ans (2)** NCERT XII Pg. # 5, 7, 8, 9, 11
- **103. Ans (4)** NCERT-XII, Pg. # 12, 15, 20
- **104.** Ans (4) NCERT XII, Pg. # 13, 20, 22
- 105. Ans (2)

  NCERT (XII) Pg. # 5, 7, 9, 10

  cells of tetrad, embryosac, functional megaspore, egg cell, pollen grain.
- **106. Ans (3)** NCERT-XI, Pg. 61
- **107. Ans (1)** NCERT Pg. No. # 67
- **108. Ans (1)** NCERT-XI, Pg. # 65
- **109. Ans ( 2 )** NCERT-XI Pg. No. # 65
- 110. Ans (2) NCERT-XI Pg. No. # 67
- 111. Ans (1) XI-NCERT page No. # 64
- 112. Ans (3) XI-NCERT Page No. # 65
- 113. Ans (3) NCERT-XI, Pg. 66, 67
- 114. Ans (2) NCERT-XI, Pg. 60
- 115. **Ans (1)** NCERT-XI, Pg. No. # 66
- 116. Ans (4)
  XIth NCERT Page No. # 63, 65
  1016CMD303031240050

- 117. Ans (2) NCERT-XI, Pg. 59, 60, 61
- 118. Ans (3) NCERT (XI) Pg # 75
- 119. Ans (3) NCERT (XI) Pg # 73
- **120.** Ans (3) NCERT (XI) Pg # 72
- 121. Ans (3)
  NCERT Page No. 74, 75
- **122. Ans (1)** NCERT, Pg. # 76
- **123. Ans (4)** NCERT, Pg. # 76
- 124. Ans (1) NCERT, Pg. # 77
- **125. Ans (1)** NCERT Page No. 73
- **126. Ans (4)** NERT Pg. # 72
- **127. Ans (4)** NCERT Pg. # 72
- 128. Ans (2)
  XIth NCERT Page No. 76
- **129. Ans ( 2 )** NCERT, Pg. # 72
- 130. Ans (2) NCERT Page No. 77
- 131. Ans (2) NCERT-XI, Pg.# 75, 76, 77
- 132. Ans (3) NCERT Pg. # 77
- 133. Ans (1)
  Chinarose, Cotton
- **134. Ans (3)** NCERT-XI, Pg. # 67
- 135. Ans (2) NCERT XI, Pg. # 62, 65
- 136. Ans (3) NCERT Pg # 37
- 137. Ans (3) NCERT-XII Pg# 54, 3.7

#### **ALLEN®**

- 138. Ans (2) NCERT-XII, PG-45
- 139. Ans (3) NCERT-XII, Pg. # 48
- **140. Ans ( 3 )** NCERT Pg # 52-53
- **141. Ans ( 2 )** NCERT Pg # 43
- **142. Ans (2)** NCERT Pg # 43
- **143. Ans ( 3 )** NCERT-XII, Pg. # 54
- **144. Ans ( 2 )** NCERT-XII, Pg. # 43
- **145. Ans (4)** NCERT, Pg. # 32,33 (E), 35,36 (H)
- **146. Ans (4)** NCERT Pg # 30 (E), 32 (H)
- **147. Ans (3)** NCERT Pg. No. # 48, 51
- **148. Ans ( 2 )** NCERT Pg. No. # 28 & 30
- **149. Ans (2)** NCERT, Pg. # 30,38,46,47(E), 32,42,52(H)
- **150. Ans (3)** NCERT Pg # 48
- 151. **Ans (4)** LH, FSH
- **152. Ans (2)** Module-1, Pg. No.- 15
- **153. Ans (4)** NCERT Pg. # 31
- **154. Ans (4)** NCERT Pg. # 27
- 155. Ans (4) NCERT Pg. # 34
- **156. Ans (1)** NCERT Pg. No. # 32
- **157. Ans (3)** NCERT, Pg. # 37
- **158. Ans (1)** NCERT XII Pg # 27
- 159. Ans (1) NCERT - 20 HS-8/8

- 160. Ans (2) NCERT Pg. # 30
- 161. Ans (2) NCERT # 37
- **162. Ans (3)** NCERT Pg. # 28
- **163. Ans (4)** NCERT Pg. # 28,29,30,31
- **164. Ans ( 2 )** NCERT XII Pg # 28-30
- 165. Ans (1) NCERT Pg. # 28
- **166. Ans (1)** NCERT Pg # 48
- **167. Ans (2)** NCERT Pg # 42
- **168. Ans (3)** NCERT Pg # 44
- **169. Ans ( 3 )** NCERT Pg #45
- 170. Ans (2) NCERT Pg. # 43, 44
- **171. Ans (1)** Pg. No.: 46
- **172. Ans (4)** NCERT-XII Pg#60,61
- 173. Ans (2) NCERT, Pg # 45
- **174. Ans (4)** NCERT, Pg # 44
- 175. Ans (3) NCERT, Pg. # 43
- **176. Ans ( 3 )**NCERT XII Pg # 42
- **177. Ans ( 3 )** NCERT-XII, Pg. # 42
- 178. Ans (2) NCERT-XII, Pg. # 44
- 179. Ans (4) NCERT Pg # 48
- **180.** Ans (4) NCERT Pg # 44, 46