

CLASSROOM CONTACT PROGRAMME

(Academic Session: 2019 - 2020)

Enthusiast, Leader & Achiever Course

PHASE : ALL PHASE TARGET : PRE-MEDICAL 2020

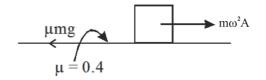
Test Type :MAJOR Test Pattern :NEET (UG)

TEST DATE: 24-07-2020

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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
1	2	3	2	2	1	1	1	1	3	1	1	1	2	4	4	4	3	3	3	4	3	4	4	1	2	3	3	3	3
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
3	4	3	3	4	3	3	2	2	2	4	2	2	3	2	4	1	1	4	2	4	4	4	4	4	1	3	3	3	2
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
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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
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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
2	2	4	1	4	4	4	2	3	3	4	2	2	4	1	3	3	2	2	2	1	2	2	4	4	4	3	3	2	1
	2 31 1 61 3 91 2 121 3 151	2 4 31 32 1 2 61 62 3 4 91 92 2 3 121 122 3 3 151 152	2 4 2 31 32 33 1 2 3 61 62 63 3 4 3 91 92 93 2 3 2 121 122 123 3 3 2 151 152 153	2 4 2 2 31 32 33 34 1 2 3 2 61 62 63 64 3 4 3 3 91 92 93 94 2 3 2 3 121 122 123 124 3 3 2 1 151 152 153 154	2 4 2 2 4 31 32 33 34 35 1 2 3 2 2 61 62 63 64 65 3 4 3 3 4 91 92 93 94 95 2 3 2 3 1 121 122 123 124 125 3 3 2 1 4 151 152 153 154 155	2 4 2 2 4 4 31 32 33 34 35 36 1 2 3 2 2 1 61 62 63 64 65 66 3 4 3 3 4 3 91 92 93 94 95 96 2 3 2 3 1 4 121 122 123 124 125 126 3 3 2 1 4 4 151 152 153 154 155 156	2 4 2 2 4 4 4 31 32 33 34 35 36 37 1 2 3 2 2 1 1 61 62 63 64 65 66 67 3 4 3 3 4 3 3 91 92 93 94 95 96 97 2 3 2 3 1 4 3 121 122 123 124 125 126 127 3 3 2 1 4 4 2 151 152 153 154 155 156 157	2 4 2 2 4 4 4 1 31 32 33 34 35 36 37 38 1 2 3 2 2 1 1 1 61 62 63 64 65 66 67 68 3 4 3 3 2 91 92 93 94 95 96 97 98 2 3 2 3 1 4 3 2 121 122 123 124 125 126 127 128 3 3 2 1 4 4 2 4 151 152 153 154 155 156 157 158	2 4 2 2 4 4 4 1 4 31 32 33 34 35 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HINT - SHEET

1. Ans (2)



 $\mu mg \ge m\omega^2 A$

$$A \leq \frac{\mu g}{\omega^2}$$

$$\leq \frac{0.4 \times g}{(2\pi f)^2}$$

$$\leq \frac{0.4}{4 \times 4}$$

 $\leq 0.025 \text{ m}$

≤ 2.5 cm

2. Ans (4)

$$X = A \sin \omega t$$

$$A/2 = A \sin \omega t$$

$$\omega t = \frac{\pi}{6}t = \frac{\pi}{(6\omega)} = \frac{\pi}{6} \times 2\pi \qquad t = \frac{T}{12}$$

time taken to reach from x = 0 to

$$x = \frac{A}{2}$$
 is $\frac{T}{12}$

average velocity
$$\frac{\text{displacement}}{\text{time}} = \frac{\frac{A/2}{T}}{12}$$

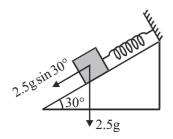
$$=\frac{1\times 24}{2\times 1}=12 \text{ cm/s}$$



3. Ans (2)

As x = 2.5 cm, hence, in equilibrium,

$$2.5g \sin 30^{\circ} = kx$$

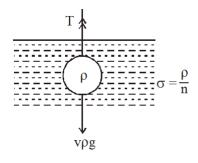


$$\omega = \sqrt{\frac{k}{m}} = \sqrt{\frac{4.9 \times 10^2}{2.5}} = \frac{70}{5} = 14$$

4. Ans (2)

$$t=2\pi\sqrt{\frac{L}{g_{eff}}}$$

$$g_{eff} \, = \, \frac{T \, ension \, in \, the \, string}{mass \, of \, bob}$$



$$T + v\sigma g = v\rho g$$

$$T = v\rho g - v\frac{\rho}{n}g$$

$$T = v\rho g \left(1 - \frac{1}{n}\right)$$

$$\frac{T}{m} = g\left(1 - \frac{1}{n}\right)$$

$$t=2\pi\sqrt{\frac{L}{g\left(1-\frac{1}{n}\right)}}$$

5. Ans (4)

In damped oscillation, amplitude goes on decaying exponentially.

 $a = a_0 e^{-bt}$ where b = damping coefficient.

Initially, $\frac{a_0}{3} = a_0 e^{-b \times 100T}$, T = time of one oscillation

or
$$\frac{1}{3} = e^{-100bT}$$
 ...(i)

Finally, $a = a_0 e^{-b(200T)}$ or $a = a_0 e^{(-100bT)2}$

or
$$a = a_0 \times \left[\frac{1}{3}\right]^2$$
 [From (i)]

or
$$a = a_0/9$$
,

Energy of oscillation $E \propto a^2$

$$E = \frac{E_0}{81}$$

6. Ans (4)

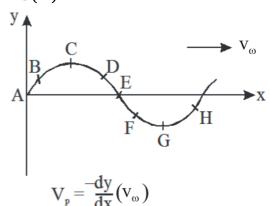
$$R_{\rm X} = \frac{\rho a}{bc}$$

$$R_{Y} = \frac{\rho c}{ab}$$

$$R_Z = \frac{\rho b}{ac}$$

 $R_X: R_Y: R_Z = \frac{a}{bc}: \frac{c}{ab}: \frac{b}{ac} = a^2: b^2: c^2$ (multiple each ratio by abc)

7. Ans (4)



 $V_{\rm w}$ = +ve, velocity is maximum at mean position as A, E are M.p so velocity will be maximum.

	Α	В	С	D	Е	F	G	Н
slope	+	+	0	_	-	_	0	+
V _p	_	_	0	+	+	+	0	_



8. Ans (1)

Time period,
$$T = 2\pi \sqrt{\frac{\ell}{g}}$$

$$\frac{\Delta T}{T} = \frac{1}{2} \frac{\Delta \ell}{\ell} = \frac{1}{2} \alpha \Delta \theta$$

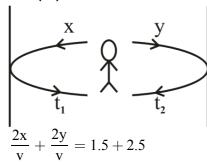
$$= \frac{1}{2} \times 12 \times 10^{-6} \times (40 - 20)$$

$$= 12 \times 10^{-5}$$

$$\Delta T = T \times 12 \times 10^{-5}$$

= 24 × 60 × 60 × 12 × 10⁻⁵
= 10.3 s day⁻¹

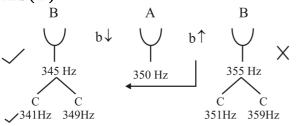
9. Ans (4)



$$\frac{1}{v} + \frac{v}{v} = 1.5 + 2.5$$

(x + y) = $\frac{v}{2} \times 4 = 660$ m

10. Ans (2)



11. Ans (3)

$$\begin{split} f_{c \, lose} &= \frac{3v}{4L} = \frac{3}{4L} \sqrt{\frac{B}{\rho_1}} \\ f_{open} &= \frac{2v}{2L^{'}} = \frac{1}{L^{'}} \sqrt{\frac{B}{\rho_2}} \end{split}$$

$$f_{\text{open}} = f_{\text{close}}$$

$$\frac{1}{L^{'}}\sqrt{\frac{B}{\rho_2}} = \frac{3}{4L}\sqrt{\frac{B}{\rho_1}}$$

$$L^{'} = \frac{4L}{3}\sqrt{\frac{\rho_1}{\rho_2}}$$

12. Ans (4)

$$b = \left(\frac{v + v_0}{v}\right) f - \left(\frac{v - v_0}{v}\right) f$$
$$= \frac{2v_0 f}{v}$$
$$= \frac{2 \times 2 \times 800}{320} = 10$$

13. Ans (2)

$$\Delta l_{C} = \Delta l_{A} + \Delta l_{B}$$

$$\Rightarrow 0.06 = \frac{0.075}{20 \times 100} \times \ell \times 100 + \frac{0.045}{20 \times 100}$$

$$(20 - \ell) \times 100$$

$$\Rightarrow \ell = 10 \text{ cm}$$

14. Ans (2)

Q = ms
$$\Delta$$
T

$$\Delta$$
T = $\frac{200 \times 1000 \text{ Cal}}{0.83 \times 60 \times 1000}$ = 4.01 °C

15. Ans (4)

in series
$$K_{eq} = \frac{L_1 + L_2}{\frac{L_1}{K_1} + \frac{L_2}{K_2}} = \frac{x + 4x}{\frac{x}{K} + \frac{4x}{2K}} = \frac{5K}{3}$$

$$\frac{dQ}{dt} = \frac{\Delta T}{R_{eq.}} = \frac{(T_2 - T_1)}{\frac{5x}{K_{eq.}A}} = \frac{5K}{3} \frac{(T_2 - T_1)A}{5x}$$
on compairing $f = \frac{1}{3}$

16. Ans (3)

Rate of heat flow,

$$\frac{dQ}{dt} = \frac{KA(\Delta T)}{\Delta \ell} = Cons \tan t$$

$$\Rightarrow \Delta T \propto \frac{1}{A}$$

Therefore temperature difference across AB is less than that of across CD.



18. Ans (1)

$$\Delta U_{cyclic} = 0$$

$$\Rightarrow$$
 $\Delta Q_{cvelic} = \Delta W_{cvelic}$

$$\Rightarrow$$
 $\Delta Q_{cyclic} = \Delta W_{AB} + W_{BC} + W_{CA}$

$$\Rightarrow$$
 5 = 10(2 - 1) + 0 + W_C

$$\Rightarrow$$
 $W_{CA} = -5 J$

19. Ans (3)

$$Q = W + \Delta U$$

$$\Delta U = 0$$
 in cyclic process

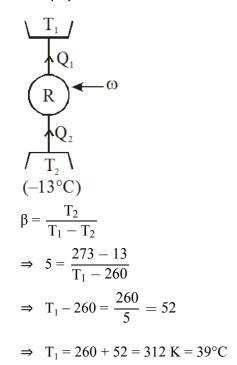
$$Q = W = area enclosed by curve$$

$$= \pi ab$$

$$= \pi \times 10 \times 10^3 \times 10 \times 10^{-3}$$

$$= 10^2 \pi \text{ J}$$

20. Ans (3)



21. Ans (4)

Energy density of wave is given by

$$u = 2 \pi^2 n^2 \rho a^2$$

Or $u \propto a^2$ (as n and ρ are constant)

$$\frac{u_1}{u_2} = \frac{a_1^2}{a_2^2} = \frac{5^2}{2^2} = \frac{25}{4}$$

22. Ans (1)

at t = 0
$$y = 10 \sin\left(\frac{\pi}{3}\right) = 5\sqrt{3}m$$

$$v = \frac{dy}{dt} = 60 \cos\left(6t + \frac{\pi}{3}\right)$$
at t = 0
$$v = 60 \times \frac{1}{2} = 30 \text{m/s}$$

23. Ans (1)

$$K_{f} = \frac{K_{e} \text{ at } A/2}{K_{Total}} = \frac{\frac{1}{2} m\omega^{2} \left(A^{2} - \frac{A^{2}}{4}\right)}{\frac{1}{2} m\omega^{2} A^{2}}$$
$$\Rightarrow K_{f} = \frac{3}{4}$$

24. Ans (3)

$$\begin{split} m_1 &= M, \ T_1 = T \\ m_2 &= M, \ T_2 = \frac{5T}{3} \\ \frac{T_1}{T_2} &= \frac{2\pi\sqrt{m_1/k}}{2\pi\sqrt{m_2/k}} = \sqrt{\frac{m_1}{m_2}} = \sqrt{\frac{M}{M+m}} \end{split}$$

or
$$\frac{M+m}{M} = \left(\frac{T_2}{T_1}\right)^2 = \left(\frac{5T/3}{T}\right)^2 = \frac{25}{9}$$

$$\therefore \frac{m}{M} = \frac{16}{9}$$

25. Ans (1)

$$(N+1)T_S = NT\ell$$
 because $T \propto \sqrt{\ell}$

$$\Rightarrow \ \frac{N+1}{N} = \sqrt{\frac{\ell \ell}{\ell_S}} = \sqrt{\frac{2}{0.5}} = 2$$

$$\Rightarrow \frac{N+1}{N} = 2 \Rightarrow N = 1 \Rightarrow N+1=2$$

26. Ans (1)

Let time taken "t" sec to complete 50 oscillations than time to complete

150 oscillation = 3 t

$$a = a_0 e^{-\gamma t}$$

$$(0.8a_0) = a_0 e^{-\gamma t}$$

$$e^{-\gamma t} = 0.8$$
(1)

$$a = a_0 e^{-\gamma t}$$

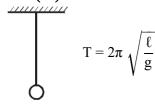
$$a = a_0 \left(e^{-\gamma t} \right)^3$$

$$a = a_0 (0.8)^3$$

$$= 0.512 a_0$$



27. Ans (3)



$$T = 2\pi \sqrt{\frac{\frac{m\ell^2}{3}}{mg\frac{\ell}{2}}} = 2\pi \sqrt{\frac{2\ell}{3g}}$$

$$\frac{v_{p \max}}{v_{00}} = KA = \frac{2\pi}{5}a$$

29. Ans (1)

$$T = V^2 \mu = \left(\frac{\omega}{k}\right)^2 \mu$$
$$= \left(\frac{30}{1}\right)^2 \times 10^{-4} = 0.09 \text{ N}$$

30. Ans (1)

$$\begin{split} v_0 &= \sqrt{\frac{7}{5}} \frac{RT}{2} \\ v_{mi\,x} &= \sqrt{\frac{\gamma_{mix}\,RT}{MW_{mix}}} \\ f_{mix} &= \frac{n_1f_1 + n_2f_2}{n_1 + n_2} = 4 \\ \gamma_{mix} &= 1 + \frac{2}{f_{mix}} = \frac{3}{2} \\ MW_{mix} &= \frac{2+4}{2} = 3 \end{split}$$

Therefore

$$\nu_{mix}\,=\sqrt{\frac{\frac{3}{2}\,RT}{3}}=\sqrt{\frac{5}{7}}\,v_0$$

31. Ans (1)

$$\begin{split} n^{'} &= n \left(\frac{v + v_t}{v - v_t} \right) = 1000 \left(\frac{330 + 220}{330 - 220} \right) \\ &= 1000 \times \frac{550}{110} = 5000 \text{Hz} \end{split}$$

32. Ans (2)

At the bottom most point , square of speed of bob $v^2 = 2gL(1-cos\alpha) \label{eq:v2}$

It will rise further to a height

$$h = \frac{v^2}{2g} = L(1 - \cos \alpha)$$
or $(L - \ell) (1 - \cos \theta) = L(1 - \cos \alpha)$

$$\therefore \theta = \cos^{-1} \left[\frac{L \cos \alpha - \ell}{L - \ell} \right]$$

33. Ans (3)

$$f = \frac{1}{2\ell} \; \sqrt{\frac{T}{\mu}}$$

If radius is doubled and length is doubled, mass per unit length will become four times. Hence

$$f^{'}=\frac{1}{2\times2\ell}\;\sqrt{\frac{2T}{4\mu}}\;=\frac{f}{2\sqrt{2}}$$

34. Ans (2)

There are two position of observer



35. Ans (2)

Number of maxima = 18

Number of minima = 20

36. Ans (1)

$$P = kV \implies PV^{-1} = Constant$$

By using
$$C = C_v + \frac{R}{1 - x}$$
 (for $PV^x = Constant$)

We have
$$C = \frac{3}{2}R + \frac{R}{1 - (-1)} = 2R$$

Therefore heat supplied

$$Q = nC\Delta T = 1 (2R) (2T_0 - T_0) = 2RT_0$$

37. Ans (1)

Heat loss = Heat gain

$$mL_V + mS_W (100 - 90) = 22S_w (90 - 20)$$

$$m[540 + 10] = 22 \times 1 \times 70$$

$$m = \frac{22 \times 70}{550} = 2.8 \text{ gm}$$

Mass of water = 22 + 2.8 = 24.8 gm

38. Ans (1)

As heat current is same in all cross section so option (1) is correct

39. Ans (1)

$$\frac{62-50}{10} = k \left[\frac{62+50}{2} - 26 \right] \quad \dots (1)$$

$$\frac{50 - T}{10} = k \left[\frac{50 + T}{2} - 26 \right] \qquad \dots (2)$$

$$(1)/(2) \Rightarrow T = 42^{\circ}C$$

40. Ans (3)

Mole conservation

$$n_1 + n_2 = n'_1 + n'_2$$

$$\frac{PV}{R(300)} + \frac{PV}{R(300)} = \frac{P'V}{R(600)} + \frac{P'V}{R(300)}$$

$$2P = P'\left(\frac{1}{2} + 1\right)$$

$$P' = \frac{4}{3}P = \frac{4}{3} \times 1 = \frac{4}{3}$$
atm

41. Ans (1)

Theory

$$C_p - C_v = \frac{R}{M.W.}$$

whre C_n & C_v are gm specific heat.

42. Ans (1)

$$VT = k$$

From Ideal gas equation pv=nRT

$$PV^2 = Constant$$

For polytrophic

$$\Rightarrow W = \frac{P_1 V_1 - P_2 V_2}{x - 1}$$
$$= nR \frac{(T_1 - T_2)}{x - 1} = \frac{-nR\Delta T}{2 - 1} = -nR\Delta T$$

$$O = \Delta U + W$$

$$Q = \frac{3}{2}R\Delta T - nR\Delta T = \frac{1}{2}R\Delta T$$

44. Ans (2)

$$\begin{split} \eta &= 1 - \frac{T_2}{T_1} \implies \frac{W}{3000 \text{ kcal}} = 1 - \frac{300}{900} \\ \Rightarrow W &= \frac{2}{3} \times 3000 \text{ kcal} = 2000 \text{ kcal} \\ &= 2 \times 4.2 \times 10^6 \text{ J} \\ &= 8.4 \times 10^6 \text{ J} \end{split}$$

45. Ans (4)

$$\gamma = \frac{\Delta V}{V} \times \frac{1}{\Delta \theta} = \frac{25}{100} \times \frac{1}{80} = 0.0031$$
°C

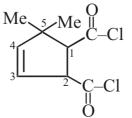
46. Ans (4)



Furane Thiophene Pyridine

Heterocyclic compounds

47. Ans (4)



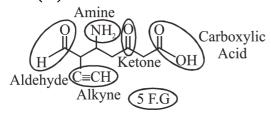
5,5-Dimethyl cyclopent-3-ene-1,2-di carbonyl chloride



48. Ans (3)

Priority order -OH > -SH SH 5 4 OH OH

50. Ans (3)



51. Ans (4)

Homologous compound have same F.G. but different molecular formulae.

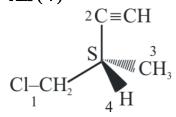
52. Ans (3)

Fact

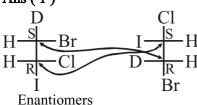
53. Ans (4)

Same molecular formula

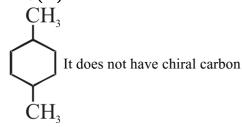
54. Ans (4)



55. Ans (1)



56. Ans (2)



57. Ans (3)

Stability order:

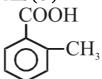
Anti > Gauche > Partially eclipsed > Fully eclipse

58. Ans (3)

HC≡C-H < H2CO₃

Acidic strength hence it HC≡CH does not react with NaHCO₃

59. Ans (3)



Due to ortho effect it is most acidic

60. Ans (3)

Basic strength $\propto \frac{+M/+H/+I}{-M/-H/-I}$







$$\bigg) \bigg(\bigg|_{N} \bigg)$$

More EN More –I of nitrogen of oxygen

+I Less –I of nitrogen

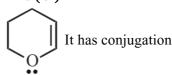
61. Ans (3)

Bond length C-N > C \longrightarrow N > C \longrightarrow N

62. Ans (4)

Fact

63. Ans (3)



64. Ans (3)

65. Ans (4)



66. Ans (3)
Bridge head cannot be sp² hybridised

67. Ans (3)

O

In

or non-aromatic

68. Ans (2)

O

II

CH₃-C-CH₋₂COOH

β-keto acid is highly reactive for dicarboxylation

69. Ans (2) $CH_{\overline{3}}CH-Br \xrightarrow{Na} CH_{\overline{3}}-CH-CH-CH$ $CH_{\overline{3}} \xrightarrow{CH_{\overline{3}}} CH_{\overline{3}} \xrightarrow{CH_{\overline{3}}} CH_{\overline{3}}$

70. **Ans (2)** $CH_{3}-CH=CH-\bigcirc\bigcirc\bigcirc-OH$ $CH_{3}-CH-\stackrel{-}{CH}-\bigcirc\bigcirc\bigcirc-OH$ H Br $CH_{3}-CH-CH-\bigcirc\bigcirc\bigcirc-OH$

71. Ans (4)

OH

OH

Cro₃

(A) CH_3MgBr H_2SO_4 OH

HO CH_3 H_2O_2/OH OH CH_3 H_2O_2/OH OH CH_3 OH O

72. Ans (2) CH_3 CH_3

73. Ans (2) $\begin{array}{c}
N_2Cl \\
& H_3PO_2
\end{array}$

74. Ans (3)

$$\begin{array}{c}
OH \\
O= \\
O_2N \\
O= \\
NO_2
\end{array}$$

75. Ans (2) Rate of ESR $\propto \frac{+M/+H/+I}{-M/-H/-I}$

76. Ans (4)
Fact

77. Ans (1)

Clean water have BOD less than 5 ppm and polluted water have BOD 17ppm or more

Fact

80. Ans (2)
Fact

81. Ans (4)

$$IV > III > II > I$$

$$(I) \qquad (III) \qquad (III) \qquad (IV)$$

$$Reso(-)n^{+} \qquad Reso(-)n^{+} \qquad Reso \uparrow \qquad Reso \uparrow \uparrow$$

$$(1^{\circ}) \qquad (3^{\circ})$$

82. Ans (4)

Stability of free radical ∝ Resonance

 $\propto +I$

83. Ans (4)

Not give Hoffmann bromamide reaction

84. Ans (4)
Fact



85. Ans (4)

86. Ans (1)
Alkanes are non-polar

87. Ans (3) $CH_{3}-CH=CH_{2}\xrightarrow{\text{(i) }B_{2}H_{6}}CH_{3}-CH_{2}-CH_{2}$ OH

88. Ans (3)
$$CH_{3}-C \equiv CH+H_{2}O \xrightarrow{Hg^{-2}/H^{\oplus}} CH_{3}-C = CH_{2}$$

$$\downarrow Tautomerisation$$

$$CH_{3}-C \equiv CH_{3}-C = CH_{2}$$

$$\downarrow Tautomerisation$$

89. Ans (3) Rate of $S_N 1 \propto Stability$ of C^{\bigoplus}

90. Ans (2)

$$CH_{3}-CH=CH_{2} \xrightarrow{HBr} CH_{3}-CH-CH_{3}$$

$$\xrightarrow{HBr} CH_{3}-CH-CH_{3}$$

$$\xrightarrow{HBr} CH_{3}-CH_{2}-CH_{3}$$

$$\xrightarrow{R_{2}O_{2}} CH_{3}-CH_{2}-CH_{3}$$

$$\xrightarrow{R_{2}O_{2}} CH_{3}-CH_{2}-CH_{3}$$

118. Ans (3) NCERT Pg. # 316 (E)

120. Ans (1) NCERT Pg. # 316 (E)

121. Ans (3)NCERT Pg. # 316 (E)

122. Ans (3) NCERT Pg. # 318 (E)

123. Ans (2) NCERT Pg. # 319 (E)

124. Ans (1) NCERT Pg. # 318 (E)

125. Ans (4)
NCERT (XIth) Pg. # 300/ 2nd Last para Last line

126. Ans (4) NCERT (XIth) Pg. # 296

127. Ans (2)NCERT (XIth) Pg. # 297/ 4rd Para 1st Line

128. Ans (4) NCERT (XIth) Pg. # 297/ Topic 19.5 Last Para

129. Ans (4)NCERT (XIth) Pg. # 292 (Fig 19.2)

162. Ans (2) NCERT (XIth) (E), Fig.-16.4, Pg. # 260 NCERT (XIth) (H), Fig.-16.4, Pg. # 260

163. Ans (2) NCERT (XIth) (E), Para-1, Pg. # 260

164. Ans (4)
NCERT New update

165. Ans (1)

NCERT (XIth) (E), Para-1, Pg. # 262

NCERT (XIth) (H), Para-1, Pg. # 262

166. Ans (3) NCERT (XIth) (E), Tab.-16.1, Pg. # 264 NCERT (XIth) (H), Tab.-16.1, Pg. # 264

167. Ans (3)NCERT (XIth) (E), Para-3, Pg. # 257
NCERT (XIth) (H), Para-4, Pg. # 257

168. Ans (2) NCERT (XIth) (E), Para-1, Pg. # 259 NCERT (XIth) (H), Para-2, Pg. # 259

169. Ans (2)
NCERT New update

174. Ans (4) NCERT Page no. 332

176. Ans (4) NCERT (XI) Pg. # 333