

ENTHUSIAST COURSE

TARGET : PRE-MEDICAL 2013



ALLENTM

CAREER INSTITUTE
KOTA (RAJASTHAN)

MAJOR TEST # 01

ALLEN NEET-UG (12th Syllabus)

DATE : 08 - 01 - 2013

ANSWER KEY

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

HINT - SHEET

16. $E_b = E_{bn} \times A$
 E_b for X = $7.4 \times 200 = 1480$ MeV
 E_b for A = $8.2 \times 110 = 902$ MeV
 E_b for B = $8.2 \times 90 = 738$ MeV
 $Q = E_{bf} - E_{bi} = 1640 - 1480 = 160$ MeV

18. $P = \frac{NE}{t} = \frac{m}{M\omega} \times N_A \times \frac{E}{t}$
 $= \frac{2 \times 10^3}{235} \times 6 \times 10^{23} \times \frac{188 \times 1.6 \times 10^{-19}}{30 \times 24 \times 3600} \text{ Mw} = 59 \text{ Mw}$

22. $m_p = 10^{-2} \left(\frac{1}{2}\right)^4 = 6.25 \times 10^{-4} \text{ kg}$

$m_q = 10^{-2} \left(\frac{1}{2}\right)^8 = 2.5 \times 10^{-3} \text{ kg}$

24. 3 because α , β , γ will be separated by magnetic field.

28. NCERT - Page No. # 248

At the time of resonance $\theta = 0$,
 so $\cos \phi = \text{power factor} = 1$

37. NCERT - Page No. # 68

Electrostatic potential is constant throughout the volume of the conductor

39. NCERT - Page No. # 31

$\tau_{\max} = PE \sin 90$
 $= q L E$
 $= 2 \times 10^{-6} \times 3 \times 10^{-2} \times 2 \times 10^5$
 $= 12 \times 10^{-3} \text{ N-m}$

40. NCERT - Page No. # 115

$i_1 = \frac{20}{6+5+a} = 1 \text{ A}$

$$i_2 = \frac{40}{8+5+7} = 2A$$

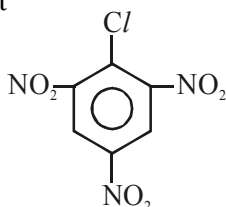
$$V_C + 5 \times 1 - 10 + 5 \times 2 = V_E$$

$$V_C - V_E = -5$$

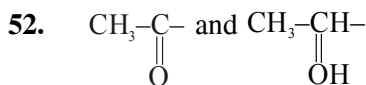
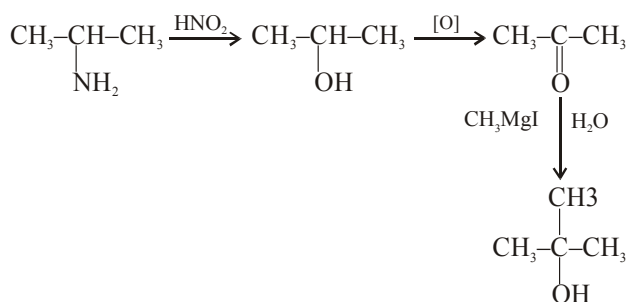
46. $-\text{NO}_2$ ($-M$ group) are present

at O- & P- positions so

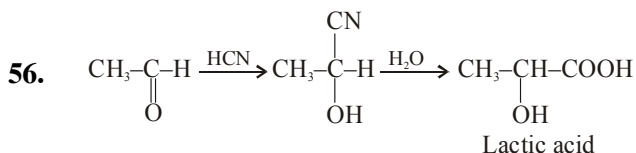
reactivity for NSR increases.



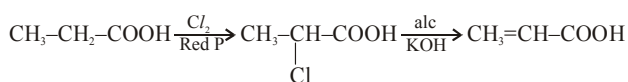
50.



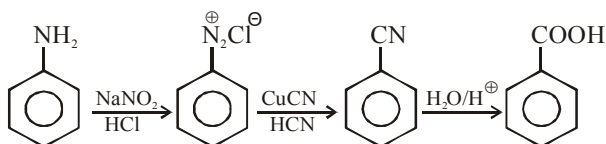
Containing group shows iodoform test.



60.



64.



70. Aspirin is acetylated product of salicylic acid

72. $\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$ gives DNP test but not gives

Tollen's. test and fehling's solution test.

74. NH_2-NH_2 does not gives lassaigne's test for nitrogen.

75. Mass of one unit cell = $v \times d$
= $a^3 \times d$

Also, density = $\frac{n \times \text{at.wt}}{a^3 \times N_A}$

Mass of one unit cell = $\frac{a^3 \times n \times \text{at.wt}}{a^3 \times N_A}$

Mass of one unit cell = $\frac{4 \times 58.5}{6.02 \times 10^{23}}$
= $38.87 \times 10^{-23} \text{g}$

No of unit cell in one g = $\frac{1}{38.87 \times 10^{-23}}$
= 2.57×10^{21}

76. $\Delta G^\circ = -nF E^\circ_{\text{cell}}$

77. These defects are created when one +ve and one \ominus ve ion are missing from their respective position.

79. B placed in octahedral void thus C.N. is six.

81. $r = K [A]^n [B]^m$

$$r_1 = K [2A]^n [B/2]^m$$

$$\frac{r_1}{r} = 2^{n-m}$$

82. At equilibrium $Q = K_c$

$$E_{\text{cell}} = 0$$

83. $A_t = A_o - Kt$

acc. to $y = C - mx$

84. $\pi = iCST$

For KNO_3 , $i = 2$ ($\alpha = 100\%$)

For CH_3COOH , $i < 2$ (weak acid)

85. For slow step, rate = $K [\text{O}][\text{O}_3]$(1)

For equilibrium $K_c = \frac{[\text{O}][\text{O}_2]}{[\text{O}_3]}$

$$[\text{O}] = K_c \frac{[\text{O}_3]}{[\text{O}_2]} \dots\dots\dots(2)$$

From eq. (1) and (2)

$$r = K K_c [\text{O}_3]^2 [\text{O}_2]^{-1}$$

$$r = K^1 [\text{O}_3]^2 [\text{O}_2]^{-1}$$

86. $\text{C}_2\text{H}_5\text{OH}$ shows H-bonding as well as polarity both

87. More is the valency of effective ion, greater is it's coagulating power. The Hardy-Schulze rule.

88. $i = 1 - \alpha + \alpha/n$
 $\alpha = 1$
 $n = 3$
 $i = 1 - 1 + 1/3 = 1/3$
91. NCERT - XIIth - Page No. # 140, Para - 3
93. NCERT - XIIth - Page No. # 140, Para - 4
95. NCERT - XIIth - Page No. # 140, Para - 4
97. NCERT - XIIth - Page No. # 138, Line - 11
99. NCERT - XIIth - Page No. # 134, Para - 3
103. NCERT - XIIth - Page No. # 173, Line - 7
105. NCERT - XIIth - Page No. # 173, Para - 2
107. NCERT - XIIth - Page No. # 174, Table - 9.1
116. NCERT XII Page # (E) 60 (H) 66
118. NCERT XII Page # (E) 65 (H) 73
120. NCERT XII Page # (E) 53 (H) 57
126. NCERT XII Page # (E) 43, 47, 48, 50
(H) 46, 51, 53, 55
133. 12th NCERT Page no. 86
141. 12th NCERT Page no. 81
145. 12th NCERT Page no. 200
151. 12th NCERT Page no. 82
153. 12th NCERT Page no. 122
155. 12th NCERT Page no. 119
159. 12th NCERT Page no. 182
160. NCERT-XIIth, Page 27 (English), 28 (Hindi)
162. NCERT-XIIth, Page 29 (English), 30 (Hindi)
163. 12th NCERT Page no. 181
165. 12th NCERT Page no. 183
166. NCERT-XIIth, Page 24 (English), 25 (Hindi)
167. 12th NCERT Page no. 197
168. NCERT-XIIth, Page 23 (English), 24 (Hindi)
169. 12th NCERT Page no. 211
171. 12th NCERT Page no. 212
172. NCERT-XII, (Eng.) Page 165,
(Hindi) Page 179
173. NCERT-XII, (Eng.) Page 169,
(Hindi) Page 184
174. NCERT-XII, (Eng.) Page 228, 231
(Hindi) Page 247, 251
175. NCERT-XII, (Eng.) Page 169, 166
(Hindi) Page 184, 180
177. NCERT-XII, (Eng.) Page 168, 169
(Hindi) Page 183
178. NCERT-XII, (Eng.) Page 168,
(Hindi) Page 182
179. NCERT-XII, (Eng.) Page 168,
(Hindi) Page 182
180. NCERT-XII, (Eng.) Page 168,
(Hindi) Page 183