

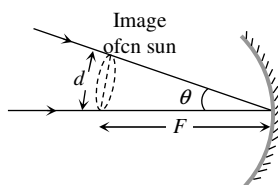


1. (b)

Sol. Diameter of image of sun $d = f\theta$

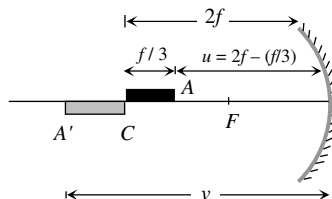
$$\Rightarrow d = 100 \times \left(\frac{30}{60}\right) \times \frac{\pi}{180}$$

$$\Rightarrow d = 0.87 \text{ cm.}$$



2. (b)

Sol. If end A of rod acts an object for mirror then its image will be A' and if $u = 2f - \frac{f}{3} = \frac{5f}{3}$

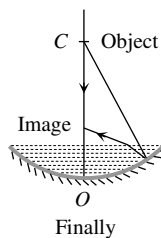
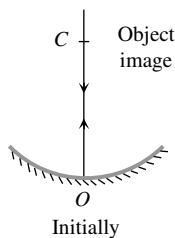


So by using $\frac{1}{f} = \frac{1}{v} + \frac{1}{u} \Rightarrow \frac{1}{-f} = \frac{1}{v} + \frac{1}{\frac{-5f}{3}} \Rightarrow v = -\frac{5}{2}f$

\therefore Length of image $= \frac{5}{2}f - 2f = \frac{f}{2}$

3. (d)

Sol.

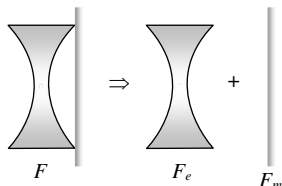


4. (a)

Sol. By using $\frac{1}{F} = \frac{2}{f_l} + \frac{1}{f_m}$

Since $f_m = \infty \Rightarrow F = \frac{f_l}{2} = \frac{20}{2} = 10 \text{ cm}$

(After silvering concave lens behave as convex mirror)



5. (c)

Sol. Given $\delta_m = A$, then by using $\mu = \frac{\sin \frac{A + \delta_m}{2}}{\sin \frac{A}{2}} \Rightarrow \mu = \frac{\sin \frac{A + A}{2}}{\sin \frac{A}{2}}$

$$= \frac{\sin A}{\sin \frac{A}{2}} = 2 \cos \frac{A}{2} \left\{ \sin A = 2 \sin \frac{A}{2} \cos \frac{A}{2} \right\}$$

$$\Rightarrow 1.5 = 2 \cos \frac{A}{2} \Rightarrow 0.75 = \cos \frac{A}{2} \Rightarrow 41^\circ = \frac{A}{2} \Rightarrow A = 82^\circ$$

6. (c)

Sol. Incident ray and emergent ray are symmetrical in the curve, when prism is in minimum deviation position.

Hence in this condition $\mu = \frac{\sin i}{\sin \frac{A}{2}} \Rightarrow \sin i = \mu \sin \left(\frac{A}{2} \right)$

$$\Rightarrow \sin i = 1.414 \times \sin 30^\circ = \frac{1}{\sqrt{2}} \Rightarrow i = 45^\circ$$

7. (a)

Sol. $\omega_{\text{Crown}} = \frac{\mu_v - \mu_r}{\mu_y - 1} = \frac{1.5318 - 1.5140}{(1.5170 - 1)} = 0.034$

and $\omega_{\text{Flint}} = \frac{\mu'_v - \mu'_r}{\mu'_y - 1} = \frac{1.6852 - 1.6434}{1.6499 - 1} = 0.064$

8. (c)

Sol. Intensity \propto (Amplitude)²

$$\Rightarrow I \propto A^2$$

When two waves (beams) of amplitude A_1 and A_2 superimpose, at maxima and minima, the amplitude of the resulting wave are $(A_1 + A_2)$ and $(A_1 - A_2)$ respectively. If the maximum and minimum possible intensities are I_{max} and I_{min} respectively, then

$$I_{\text{max}} \propto (A_1 + A_2)^2$$



and $I_{\min} \propto (A_1 - A_2)^2$

$$\Rightarrow \frac{I_{\max}}{I_{\min}} = \left(\frac{A_1 + A_2}{A_1 - A_2} \right)^2 = \left\{ \frac{\frac{A_1}{A_2} + 1}{\frac{A_1}{A_2} - 1} \right\}^2$$

where $\frac{A_1}{A_2} = \frac{\sqrt{I}}{\sqrt{4I}} = \frac{1}{2}$

$$\Rightarrow \frac{I_{\max}}{I_{\min}} = \frac{9}{1}$$

$$\Rightarrow I_{\max} = 9I, I_{\min} = I$$

9. (b)

Sol. Image is virtual so $m = +3 \Rightarrow f = \frac{R}{2} = 18\text{cm}$

$$\text{so } m = \frac{f}{f-3} \Rightarrow 3 = \frac{(-18)}{-18-u} \Rightarrow u = -12\text{cm}$$

10. (b)

Sol. End A of the rod acts as an object for mirror and A' will be its image so

$$|u| = (2f - \ell)$$

$$= (20 - 5) = 15 \text{ cm}$$

By mirror formula

$$\frac{1}{f} = \frac{1}{u} + \frac{1}{v} \Rightarrow \frac{1}{-10} = \frac{1}{-15} + \frac{1}{v}$$

$$\Rightarrow \frac{1}{v} = -\frac{1}{30} \Rightarrow v = -30 \text{ cm}$$

$$\text{Now } m = \frac{\text{length of image}}{\text{length of object}} = \frac{(30-20)}{5} = 2$$

End A of the rod acts as an object for mirror and A' will be its image so

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By mirror formula



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$$\frac{1}{f} = \frac{1}{u} + \frac{1}{v} \Rightarrow \frac{1}{-10} = \frac{1}{-15} + \frac{1}{v}$$

$$\Rightarrow \frac{1}{v} = -\frac{1}{30} \Rightarrow v = -30 \text{ cm}$$

$$\text{Now } m = \frac{\text{length of image}}{\text{length of object}} = \frac{(30-20)}{5} = 2$$

11. (c)

$$\text{Sol. } \Delta x = (2n - 1) \frac{\lambda}{2} \text{ [for minima]}$$

$$1.5 \times 10^{-6} = (2n - 1) \times \frac{6000 \times 10^{-10}}{2}$$

$$\therefore n = 3$$

12. (b)

$$\text{Sol. } d = 2\lambda$$

$$\text{Path difference } \Delta = d \sin\theta = 2\lambda \sin\theta$$

$$\text{Maximum path difference } \Delta_{\text{max}} = 2\lambda$$

So path difference for maxima

$$\boxed{2\lambda, \lambda, 0, \lambda, 2\lambda}$$

13. (c)

$$\text{Sol. } \frac{I_{\text{max}}}{I_{\text{min}}} = \frac{(a_1 + a_2)^2}{(a_1 - a_2)^2}$$

$$= \frac{49}{1}$$

14. (a)

$$\text{Sol. } \frac{I_1}{I_2} = \frac{a_1^2}{a_2^2} \Rightarrow \frac{R_{\text{max}}}{R_{\text{min}}} = \frac{a_1 + a_2}{a_1 - a_2}$$

15. (c)

$$\text{Sol. } e = 4 \times \text{LC} = 4 \times 0.01 \text{ cm} = 0.04 \text{ cm } c = -0.04 \text{ cm}$$



16. (c)

Sol. Threshold wavelength

$$\lambda_0 = \frac{12375}{W_0(eV)} = \frac{12375}{1.65} = 7500 \text{ \AA}.$$

\therefore so minimum frequency

$$\nu_0 = \frac{c}{\lambda_0} = \frac{3 \times 10^8}{7500 \times 10^{-10}} = 4 \times 10^{14} \text{ Hz}.$$

17. (b)

Sol. Remember point

18. (b)

$$\text{Sol. } eV_1 = \frac{hc}{\lambda_1} - \phi$$

$$eV_2 = \frac{hc}{\lambda_2} - \phi$$

$$V_1 - V_2 = \frac{hc}{e} \left(\frac{1}{\lambda_1} - \frac{1}{\lambda_2} \right)$$

19. (d)

Sol. Intensity \propto No. of photoelectrons. But frequency does not depend on intensity.

20. (b)

Sol. If energy is not absorbed than collision may be is elastic

21. (a)

$$\text{Sol. By using } \lambda_{electron} = \frac{h}{m_e v}$$

$$\Rightarrow v = \frac{h}{m_e \lambda_e} = \frac{6.6 \times 10^{-34}}{9.1 \times 10^{-31} \times 10^{-10}} = 7.25 \times 10^6 \text{ m/s}.$$

22. (d)

Sol. Change in angular momentum

$$\Delta L = (n_f - n_i)h/2\pi$$

Since velocity of electron is $v \propto \frac{1}{n}$

Hence linear momentum changes



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Difference in energy between energy levels is released as electromagnetic energy.

23. (a)

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

$$p = \frac{6.6 \times 10^{-34}}{5000 \times 10^{-10}} = 1.3 \times 10^{-34 + 10 - 3}$$

$$p = 1.3 \times 10^{-27} \text{ kg m/s}$$

24. (b)

Sol. $\Delta V = V_2 - V_1 = 13.6 \times 3^2 \left(\frac{1}{1^2} - \frac{1}{2^2} \right)$

$$= 13.6 \times 9 \times \frac{3}{4}$$

25. (c)

Sol. Angular momentum is a discrete quantity

$$mvr = \frac{nh}{2\pi}$$

26. (d)

Sol. $\omega = \frac{v}{r}$

$$v \propto \frac{1}{n} \text{ and } r \propto n^2$$

$$\text{hence } \omega \propto \frac{1}{n^3}$$

27. (c)

Sol. $-13.6 z^2 = -54.4 \Rightarrow Z = 2$

$\therefore \text{He}^+$ is answer

28. (c)

Sol. $E \propto Z^2/n^2$

29. (c)

Sol. $r = n^2 r_0$



30. (a)

$$\text{Sol. } \Delta E = Rch Z^2 \left[\frac{1}{n_1^2} - \frac{1}{n_2^2} \right]$$

31. (d)

$$\text{Sol. Rydberg constant } R = \frac{\epsilon_0 n^2 h^2}{\pi m Z e^2}$$

$$\text{Velocity } v = \frac{Ze^2}{2\epsilon_0 nh} \text{ and energy } E = -\frac{mZ^2 e^4}{8\epsilon_0^2 n^2 h^2}$$

Now, it is clear from above expressions $R \cdot v \propto n$

32. (c)

Sol. According to Bohr model time period of electron $T \propto n^3$

$$\Rightarrow \frac{T_2}{T_1} = \frac{n_2^3}{n_1^3} = \frac{2^3}{1^3} = \frac{8}{1}$$

$$\Rightarrow T_2 = 8T_1.$$

33. (b)

Sol. In transition $2 \rightarrow 1$ maximum energy is emitted so frequency is maximum.

34. (d)

$$\text{Sol. } A \propto r^2$$

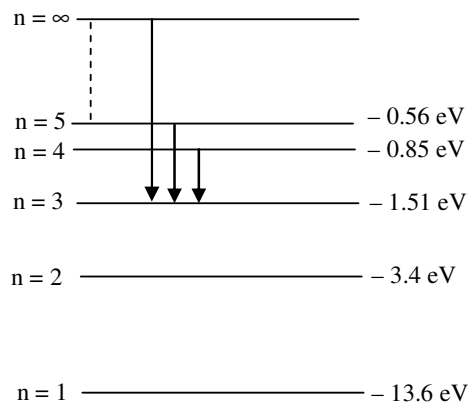
$$r \propto n^2$$

$$\Rightarrow A \propto n^4$$

$$\therefore \frac{A_2}{A_1} = \frac{16}{1}$$

35. (a)

Sol. For infrared $\lambda > 700 \text{ nm}$ i.e., wavelength is greater than 700 nm



$$\frac{1}{\lambda} = R_y \left[\frac{1}{n_f^2} - \frac{1}{n_i^2} \right]$$

$$n_i = \infty ; n_f = 3$$

$$\frac{1}{\lambda} = 1.097 \times 10^7 \left[\frac{1}{9} - 0 \right]$$

$$\lambda = \frac{9 \times 10^{-7}}{1.097}$$

$$\lambda = 820 \times 10^{-9} \text{ m}$$

36. (a)

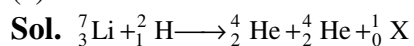
Sol. Radius $r_n = 0.529 \frac{n^2}{Z} \text{ \AA}$

37. (a)

Sol. PE = 2 × TE

$$\text{PE} = 2 \times (-13.6) = -27.2 \text{ eV}$$

38. (c)

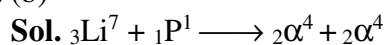


i.e. neutron.

39. (b)

Sol. Velocities interchange between comparable masses

40. (b)



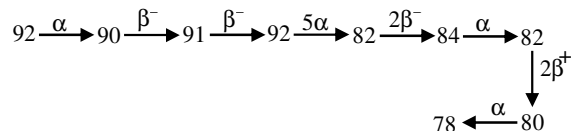


41. (a)

Sol. By using $r \propto A^{1/3} \Rightarrow$

$$\frac{r_1}{r_2} = \left(\frac{A_1}{A_2}\right)^{1/3} = \left(\frac{27}{125}\right)^{1/3} = \frac{3}{5} = \frac{6}{10}$$

42. (c)



Sol.

43. (a)

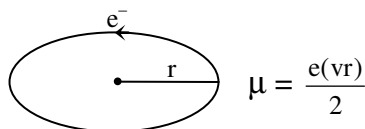
Sol. $P(\text{survival}) = \frac{N_t}{N_0} = \frac{N_0 e^{-\lambda t}}{N_0} = e^{-\lambda t}$

for $t = 1/\lambda$, $P(\text{survival}) = 1/e$

44. (a)

Sol. Angular momentum : $L = n \frac{h}{2\pi} = mvr$ Magnetic moment:

$$\mu = iA = \frac{e}{2\pi r} v \times \pi r^2$$



$$\mu = \frac{e}{2} \left(\frac{L}{m}\right)$$

$$\boxed{\frac{\mu}{L} = \frac{e}{2m}}$$

45. (b)

Sol. Decay probability per second is just the decay constant

$$\lambda = \frac{0.693}{t_{1/2}} = \frac{0.693}{2.7 \text{ days}}$$

$$\lambda = \frac{0.693}{2.7 \times 24 \times 60 \times 60}$$

$$\lambda = 2.97 \times 10^{-6} / \text{sec}$$



46. (b)

Sol. Decrease exponentially with increasing band gap.

47. (a)

Sol. When $V_A > V_B$ the diode gets forward biased and offers no resistance

$$\therefore R = \frac{20 \times 20}{20 + 20} = 10 \Omega$$

48. (c)

Sol. A metal at 0K is zero

49. (b)

Sol. Voltage gain = current gain \times resistance gain

$$= \text{current gain} \times \frac{R_C}{R_i} = 30 \times \frac{6}{1} = 180$$

50. (b)

$$\text{Sol. Voltage gain, } A_v = \frac{\beta R_C}{R_i} = \frac{I_C}{I_B} \times \frac{R_C}{R_i}$$

$$= \frac{1 \times 10^{-3} \times 4 \times 10^3}{20 \times 10^{-6} \times 1 \times 10^3} = 200$$



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PCT-04 (NEET) SOLUTIONS

CHEMISTRY

SECTION-A

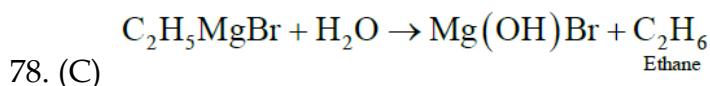
51. (C) AlC KOH brings about hydro halogenation.
52. (D) (A, B, C) are isomers of pentane but not D)
53. (B) Toluene due to $-\text{CH}_3$ group has more electron density and is more readily Sulpho noted.
54. (B)
- $$\begin{array}{cccc} \text{CH}_3 & - & \text{CH} & - & \text{CH} & - & \text{CH}_3 \\ & & | & & | & & \\ & & \text{CH}_3 & & \text{CH}_3 & & \end{array}$$
55. (C) The difference between staggered and Eclipsed Confirmation about 12 kJ / mol
- 56.(B)Factual
- 57.(D)Factual
- 58.(A) FACTUAL
- 59.(D) FACTUAL
- 60.(C) FACTUAL
- 61.(A) FACTUAL
- 62.(C) FACTUAL
- 63.(C) FACTUAL
- 64.(B) Dipole moment, in general, decreases from $\text{CH}_3\text{-Cl}$ to $\text{CH}_3\text{-Br}$ but $\text{CH}_3\text{-F}$ has unexpectedly lower dipole moment than $\text{CH}_3\text{-Cl}$. This is due to small C - F bond length
65. (A) The nucleophilicity increases as: $\text{Cl}^- < \text{Br}^- < \text{I}^-$
66. (C) FACTUAL
67. (B) Vicinal dihalides contains halogen atom on the adjacent carbon atoms
68. (A) In is allylic compound in which Br is attached next to double bonded carbon
69. (C) FACTUAL
70. (C) Sucrose is a non - reducing sugar as the two monosaccharide units i.e. glucose and fructose are linked through their reducing centres. C1 of α - glucose is linked to C2 of β - fructose. Thus 1 - 2 linkage is preset in sucrose



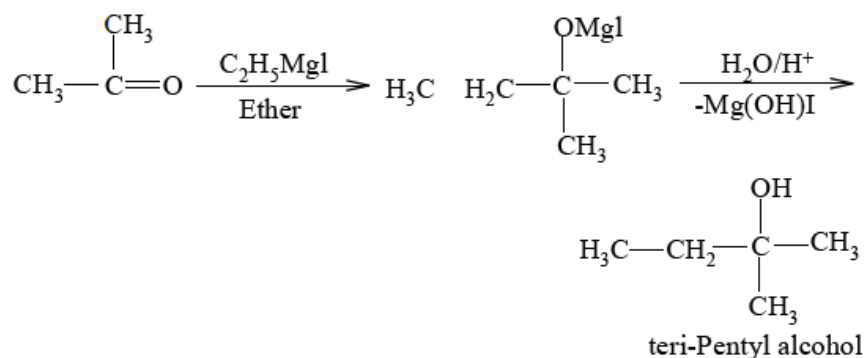
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71. (B) Since the compound 'A' forms orazone, so it may be glucose or fructose. Since the compound gives orbital and mannitol on, so it must be fructose not glucose.
72. (C) Conceptual
73. (A) C1 is the anomeric carbon
74. (B) Isoelectric point is the pH at which structure of amino acids has no charge
75. (A) Natural glucose is dextrorotatory and thus, glucose also known as dextrose
76. (A) FACTUAL



79. (C)



80. (A) Alcohols with same mol. wt. are expected to have almost same b.p., however, two more factors other than mol. wt. are important, they are namely H-bonding and surface area of molecule. Both these factors are least in 3^o alcohols and maximum in 1^o alcohols. Hence 3^o alcohols have least b.p. while 1^o alcohols have maximum b.p

81. (C) Factual



82. (A) In the reaction between HX and ROH involves the cleavage of R - OH bond of the alcohol. The order of

reactivity in this reaction is $3^\circ > 2^\circ > 1^\circ$. As such 2-methyl-2-propanol, a 3° - alcohol reacts fastest

83. (D)FACTUAL

84. (C)FACTUAL

85. (A)FACTUAL

SECTION-B

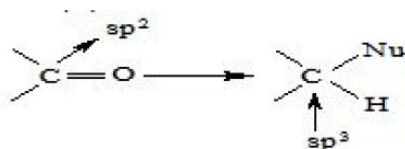
86. (C)FACTUAL

87. (A)FACTUAL

88. (A)FACTUAL

89. (A)FACTUAL

90. (C)



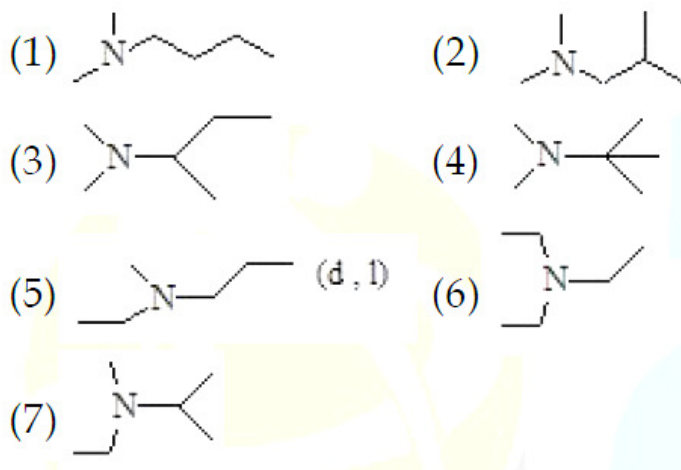
91. (D) Greater the number of alkyl/aryl groups attached to the carbonyl group, lesser will be the reactivity of the Hindrance's reagent. It is because steric hindrance

92. (D) Benzaldehyde gives silver mirror test but acetone does not

93. (A) The order of acidic nature and K_a value. Greater the number of electrons with drawing chlorine ($-I$ effect), more is the acidic nature

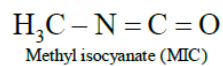
94. (D) During coupling of benzene diazonium chloride and aniline, the pH of the reaction medium should be 7 to 8

95. (D)



96. (B)FACTUAL

97. (B)FACTUAL



98. (D) FACTUAL

99. (B) FACTUAL

100. (A) FACTUAL



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PCT-04 (NEET) SOLUTIONS

BOTANY		ZOOLOGY	
Q. NO.	[ANS]	Q. NO.	[ANS]
101	B	151	B
102	B	152	B
103	A	153	D
104	C	154	C
105	A	155	C
106	D	156	C
107	B	157	D
108	A	158	C
109	D	159	D
110	B	160	B
111	B	161	C
112	B	162	A
113	A	163	C
114	B	164	B
115	A	165	D
116	D	166	C
117	D	167	C
118	B	168	D
119	A	169	A
120	A	170	C
121	D	171	C
122	C	172	D
123	D	173	C
124	B	174	A
125	A	175	C
126	C	176	A



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PCT-04 (NEET) SOLUTIONS

BOTANY		ZOOLOGY	
127	C	177	A
128	A	178	D
129	B	179	C
130	A	180	D
131	A	181	D
132	D	182	A
133	C	183	A
134	B	184	A
135	B	185	C
136	C	186	B
137	B	187	C
138	C	188	C
139	A	189	D
140	B	190	D
141	B	191	C
142	C	192	C
143	A	193	D
144	A	194	D
145	C	195	C
146	A	196	B
147	A	197	A
148	B	198	A
149	A	199	B
150	C	200	B



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PCT-04 (NEET) SOLUTIONS

BOTANY

SECTION-A

101. Molecular basis of Inheritance –
NCERT Pg – 116,117
102. Ecosystem –
NCERT Pg – 245
103. Biodiversity –
NCERT Pg – 261
104. Molecular basis of Inheritance –
NCERT Pg – 99
105. Strategies for Enhancement in Food Production –
NCERT Pg – 174
106. Biodiversity –
(d) *Ex situ* strategy is the conservation of selected threatened plant and animal species in places outside of their natural habitat, where the population is conserved under simulated conditions that closely resemble their natural habitats. It includes botanical gardens, zoological parks, seed / pollen banks, tissue cultures and gene banks, etc.
107. Molecular basis of Inheritance –
NCERT Pg – 115
108. Biodiversity –
(a) Option (a) shows the correct match.
Biodiversity is not uniform throughout the world because it is affected by many factors.
It increases from poles to equator, i.e. from higher to lower latitude and *vice-versa*.
It also increases from higher altitude to lower altitude, i.e. from mountain top to sea level and *vice-versa*.
109. Molecular basis of Inheritance –
NCERT Pg – 106,107
110. Molecular basis of Inheritance –



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(b) Statements II and III are correct.

Statements I and IV are incorrect and can be corrected as

mRNA does not have an elaborated 3D structure, it

is a linear chain.

mRNA contains codons and tRNA contains anticodons.

111. Organisms and Population –
NCERT Pg – 236

112. Molecular basis of Inheritance –
NCERT Pg – 106, 111, 116

113. Microbes in Human Welfare –

(a) Statements I, II, III and IV are correct, but statement V is incorrect and it can be corrected as In the digesters, heterotrophic microbes anaerobically digest the bacteria and fungi in the sludge. During this digestion, bacteria produce mixture of gases such as methane, hydrogen sulphide and CO₂, which form biogas.

114. Organisms and Population –
NCERT Pg – 233

115. Ecosystem –
NCERT Pg – 248

116. Microbes in Human Welfare –

(d) The statements in options (a) and (b) are correct, while the statement in option (c) is incorrect. It can be corrected as High value of BOD means that the water body is highly polluted by organic matter.

117. Strategies for Enhancement in Food Production –
NCERT Pg – 176

118. Organisms and Population –



(b) Vital index represents the ratio between natality (birth rate) and mortality (death rate). It determines the normal rate of growth of population and can be given by the following formula.

$$\text{Vital index} = \frac{\text{Natality}}{\text{Mortality}} \times 100$$

119. Strategies for Enhancement in Food Production –
NCERT Pg – 175

120. Organisms and Population –

(a) Option(a) is correct. Let us take the equation,

$$\frac{dN}{dt} = (b - d) N$$

$$\frac{dN}{dt} = (65 - 45) 100$$

$$\frac{dN}{dt} = 20 \times 100$$

$$\frac{dN}{dt} = 2000$$

121. Organisms and Population –
NCERT Pg – 235

122. Ecosystem –

(c) Primary productivity depends upon the availability of nutrients and photosynthetic capability of plants. Other factors which affect primary productivity are temperature, water, moisture, etc.

123. Organisms and Population –
NCERT Pg – 234-237

124. Ecosystem –
NCERT Pg – 252

125. Molecular basis of Inheritance –
NCERT Pg – 122

126. Ecosystem –
(c) Statements I and III are incorrect. These can be corrected as



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" Pioneer community is the first biotic community to develop in a bare area.

" It comes and occupies an area from the outside. In secondary succession, pioneer community develops from pre-existing occupants.

127. Biodiversity –
NCERT Pg – 259

128. Ecosystem –
(a) Statements I and II are correct, while statement III is incorrect. It can be corrected as Energy for detritus food chain (not grazing food chain) comes from organic remain or detritus. Grazing food chains are directly dependent on influx from solar radiations. Green plants with the help of solar radiation manufacture food by the process of photosynthesis.

129. Environmental Issues –
NCERT Pg – 271, 272

130. Biodiversity –
NCERT Pg – 267

131. Molecular basis of Inheritance –
NCERT Pg – 106
(a) An experiment similar to Meselson and Stahl experiment was performed on *Vicia faba* (faba beans) by Taylor and colleagues in 1958. The experiments proved that the DNA in chromosomes also replicate semiconservatively.

132. Biodiversity –
(d) Statements I, II and IV are correct, while statement III is incorrect and can be corrected as Beta diversity is the biodiversity, which appears in a range of communities due to replacement of species with the change in community/habitat because of the presence of different microhabitats, niches, etc., whereas gamma diversity is the diversity of the habitat in the whole region.

133. Molecular basis of Inheritance –
NCERT Pg – 97
(c) Option (c) is incorrect and can be corrected as Adenine forms two hydrogen bonds with thymine of the opposite strand and *vice-versa*. On the other hand, guanine is bounded with cytosine with three H-bonds. Rest of the options are correct.

134. Biodiversity –



NCERT Pg – 263

135. Environmental Issues –
NCERT Pg – 271

SECTION – B

136. Molecular basis of Inheritance –
NCERT Pg – 109,111,99

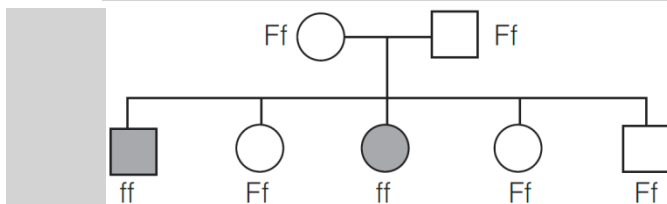
137. Microbes in Human Welfare –
NCERT Pg – 183

138. Strategies for Enhancement in Food Production –

(c) Statements in option (a) and (b) are correct for Atlas 66. It is a soft wheat that has been used since 1953 as a genetic source of higher protein in wheat. It has been used as a donor for cultivated wheat. Statement in option (d) is incorrect. The correct form of this statement is Protina, Shakti and Rattan are three lysine rich maize hybrids developed in India.

139. Principles of Inheritance and Variation –

(a) Inheritance of ear lobes is determined by an autosomal gene with two alleles. The allele 'F' for free ear lobe is dominant over allele 'f' for attached ear lobe. Thus, the type of pedigree chart can only be obtained when the parents are heterozygous. It can be explained by the chart given below



140. Sexual Reproduction in Flowering Plants –

(b) Pollenkitt is present in entomophily. It is a yellow, sticky, viscous and oily layer that covers exine of some insect pollinated pollen grains. Its major function is to make the pollen to stick to the bugs. Thus, it helps in pollination.

141. Organisms and Population –

(b) At a depth of more than 500 m in the oceans, the environment is perpetually dark and its inhabitants are not aware of the existence of the celestial source of light from the sun.



SAFE HANDS & IIT-ian's PACE

PCT-04 (NEET) SOLUTIONS

142. Ecosystem –
(c) The biotic components of aneco system referto all living organisms like plants, animals and microbes, etc.
143. Environmental Issues –
(a) Statements I and II are correctly showing the harmful effects of global warming. Statement III is incorrect and can be corrected as Increased temperature will lead to the increased weed growth, eruption of diseases and pests. Thus, crop productivity will decrease.
144. Biodiversity –
NCERT Pg – 259
145. Sexual Reproduction in Flowering Plants –
NCERT Pg – 28
146. Molecular basis of Inheritance –
NCERT Pg – 97
147. Microbes in Human Welfare –
(a) The statement in option (a) is incorrect. It can be corrected as Yeast is used in making bread and beverages is a type of eukaryotic fungus.
Rest of the statements are correct.
148. Principles of Inheritance and Variation –
NCERT Pg – 75,81,83
149. Organisms and Population –
(a) Intrinsic rate of natural increase can be defined as the number of births minus the number of deaths. Thus, a population having highest intrinsic rate will increase fastest among all of the given populations.
150. Ecosystem –
NCERT Pg – 243



ZOOLOGY

SOLUTIONS : SECTION – A

151. XII NCERT pg 200
152. XI NCERT pg 326
153. XII NCERT pg 152
154. XI NCERT pg 324
155. XII NCERT pg 211
156. XI NCERT pg 333 last line
157. XII NCERT pg 157
158. XI NCERT pg 333
159. XI NCERT pg 335,339
160. XII NCERT pg 212
161. XII NCERT pg 51. Changes happen in zonapellucida
162. XII NCERT pg 209. Reverse transcriptase forms DNA from RNA
163. XII NCERT pg 43. Vasectomy
164. XII NCERT pg 201
165. XII NCERT pg 47,48,50
166. XII NCERT pg 47, last para
167. XII NCERT pg 195



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PCT-04 (NEET) SOLUTIONS

168. XII NCERT pg 53. Blastocyst before implantation too absorbs uterine milk secreted by endometrium
169. XII NCERT pg 138
170. XII NCERT pg 60
171. XII NCERT pg 208
172. XII NCERT pg 60,61,62. Estrogen + Progesterone- oral pills, Tubectomy and vasectomy- surgical methods, MTP- abortion that lowers population
173. XII NCERT pg 59
174. XII NCERT pg 60
175. XII NCERT pg 140
176. XII NCERT pg 133
177. XII NCERT pg 60
178. XII NCERT pg 136
179. XII NCERT pg 150
180. XII NCERT pg 141
181. XI NCERT pg 332. Hypothalamus secretes somatostatin or GHIF
182. XII NCERT pg 1558. Heroin- brown sugar
183. XI NCERT pg 324
184. XII NCERT pg 127
185. XII NCERT pg 149. Typhoid- small intestine, ring worm- fungus, Dysentery- intestines



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PCT-04 (NEET) SOLUTIONS

186. XII NCERT pg 153. Auto immune disorder
187. XII NCERT pg 170
188. XII NCERT pg 62
189. XII NCERT pg 195
190. XII NCERT pg 200
191. XII NCERT pg 52. Sperm provides centriole
192. XII NCERT pg 199
193. XII NCERT pg 53. Oxytocin- hypothalamus
194. XII NCERT pg 199
195. XI NCERT pg 334
196. XI NCERT pg 334
197. XII NCERT pg 208
198. XII NCERT pg 51
199. XI NCERT pg 325. Oval window means fenestra ovalis
200. XII NCERT pg 213. Chorionic gonadotropin shall stimulate gonads to produce sex hormones and hence treat infertility.