

30/04/2019

Code-B



Regd. Office : Aakash Tower, 8, Pusa Road, New Delhi-110005; Ph.: 011-47623456

MM : 720

Mock Test for NEET-2019 Test-12

Time : 3 Hrs.

ANSWERS

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

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Code - B



Aakash

Medical | IIT-JEE | Foundations

(Divisions of Aakash Educational Services Limited)

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Hints and Solutions

PHYSICS

1. Answer (4)

$$\frac{1}{\epsilon_0} \frac{e^2 r}{hc} = \frac{Fr^3}{\lambda E} = \frac{[MLT^{-2}][L^3]}{[L][ML^2T^{-2}]} = [M^0L^0T^0A^0]$$

2. Answer (4)

$$\% \text{ loss of energy} = \frac{\Delta U}{U} \times 100\%$$

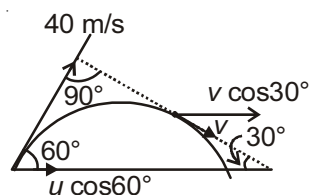
$$\frac{\Delta U}{U} \times 100\% = \frac{\frac{C_1 C_2}{2(C_1 + C_2)} (V_1 - V_2)^2}{\frac{1}{2} C_1 V^2} \times 100\%$$

$$= \frac{2 \times 8}{2 \times 10} V^2 \times 100\%$$

$$\frac{1}{2} \times 2 \times V^2$$

$$= 80\%$$

3. Answer (2)



When velocity is perpendicular to initial velocity
 $v \cos 30^\circ = u \cos 60^\circ$

$$v \times \frac{\sqrt{3}}{2} = 40 \times \frac{1}{2}$$

$$v = \frac{40}{\sqrt{3}} \text{ m/s}$$

4. Answer (2)

Resultant force $F = Kt^2 - \mu mg$

$$a = \frac{k}{m} t^2 - \mu g$$

It is equation of parabola

5. Answer (2)

Work done by resultant force = Change in kinetic energy

$$v = a\sqrt{x}$$

$$v^2 = a^2 x$$

$$2v \frac{dv}{dt} = \frac{a^2}{2} v$$

$$\int_0^v dv = \frac{a^2}{2} \int_0^t dt$$

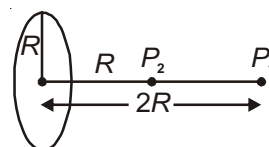
$$v = \frac{a^2}{2} t$$

$$\Delta K = \frac{1}{8} m a^4 t^2$$

6. Answer (2)

$$K.E = \frac{L^2}{2I}$$

7. Answer (1)



$$V_{P_1} = -\frac{GM}{R\sqrt{5}}$$

$$V_{P_2} = -\frac{GM}{R\sqrt{2}}$$

$$-m[V_{P_2} - V_{P_1}] = \frac{1}{2}mv^2$$

$$= (V_{P_1} - V_{P_2})m = \frac{1}{2}mv^2$$

$$v = \sqrt{\frac{2GM}{R\sqrt{2}} \left(1 - \sqrt{\frac{2}{5}}\right)}$$

8. Answer (2)

$$\vec{E}_x = -\frac{dV}{dx} = -[6 - 8y^2] \hat{i}$$

$$\vec{E}_y = -\frac{dV}{dy} = -[-16xy - 8 + 6z] \hat{j}$$

$$\vec{E}_z = -\frac{dV}{dz} = -[6y - 8z] \hat{k}$$

at origin $\vec{E} = -6\hat{i} + 8\hat{j} + 0\hat{k}$

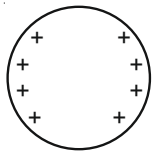
$$|\vec{E}| = 10 \frac{N}{C}$$

$$F = qE = 20 \text{ N}$$

9. Answer (3)

$$V = f\lambda$$

10. Answer (2)



Due to repulsion radius increases

11. Answer (2)

$$i = \frac{10}{10} = 1 \text{ A} \quad \therefore P = i^2 R = 1^2 \times 10 = 10 \text{ W}$$

12. Answer (4)

$$\text{Force on side } PR = iBL \cos 30^\circ$$

$$= iBL \frac{\sqrt{3}}{2}$$

13. Answer (4)

$$(x+1)520 = (x)780 \Rightarrow x = \frac{520}{260} = 2$$

14. Answer (2)

$$\frac{1}{\lambda} = RZ^2 \left[\frac{1}{2^2} - \frac{1}{3^2} \right]$$

$$\frac{1}{x} = RZ^2 \left[\frac{1}{1^2} - \frac{1}{2^2} \right]$$

$$\therefore \frac{x}{\lambda} = \frac{\frac{5}{36}}{\frac{3}{4}} = \frac{5}{27} \quad \therefore x = \frac{5\lambda}{32}$$

15. Answer (2)

$$t = \frac{\sqrt{v_1 v_2}}{g} = \frac{\sqrt{20 \times 20}}{10} = 2 \text{ s}$$

$$x = 40 \times 2 = 80 \text{ m.}$$

16. Answer (2)

$$a = \frac{(60 - 15 - 10 - 15)}{2 + 3} = 4 \text{ m/s}^2$$

$$60 - T - 15 = 3 \times 4 \quad \therefore T = 33 \text{ N}$$

17. Answer (1)

$$a = \frac{2g}{3} = \frac{2 \times 10}{3} = 6.6 \text{ m/s}^2$$

$$\alpha = \frac{a}{R}$$

18. Answer (1)

$$V_x = 40 \text{ volt}$$

$$V_y = 32 \text{ volt}$$

$$\therefore V_x - V_y = 8 \text{ volt}$$

19. Answer (1)

$$M = \sqrt{L_1 L_2}$$

$$\text{EMF} = M \frac{di}{dt} = \frac{(6 \times 10^{-3})(4)}{2 \times 10^{-3}} = 12 \text{ volt}$$

20. Answer (4)

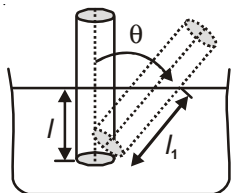
$$\begin{aligned} \text{Maximum tension in string } T &= m(g + a) \\ &= 1000 (9.8 + 2.76) \\ &= 12.56 \times 10^3 \text{ N} \end{aligned}$$

$$B.S = \frac{T}{A} = \frac{12.56 \times 10^3}{\pi r^2} = 1.44 \times 10^9$$

$$r^2 = \frac{4 \times 10^3}{1.44 \times 10^9}$$

$$D = 2r = 3.33 \text{ mm}$$

21. Answer (3)



$$\text{Restoring force} = Al'\rho g - A\rho g$$

$$\text{Restoring force} = mg \left[\frac{1}{\cos \theta} - 1 \right]$$

22. Answer (4)

$$v \propto r^2$$

$$\left(\frac{1}{9} \right) = \left(\frac{r}{R} \right)^2$$

$$R = 3r$$

$$\frac{M}{m} = \frac{R^3}{r^3}$$

23. Answer (1)

$$\text{Actual efficiency } \eta_1 = \frac{1.2}{4.2} = \frac{2}{7}$$

$$\text{Theoretical efficiency } \eta_2 = 1 - \frac{T_2}{T_1} = \frac{3}{8}$$

$$\text{Ratio} = \frac{16}{21}$$

24. Answer (3)

$$V_{\text{rms}} = \sqrt{\frac{3RT}{M}}$$

25. Answer (4)

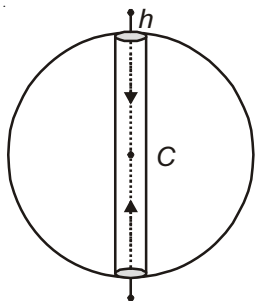
$$dQ = mc dt$$

$$dQ = 10 \times 0.3 t^2 dt$$

$$Q = 3 \int_0^{10} t^2 dt$$

$$= 1000 \text{ cal}$$

26. Answer (3)

Time taken from depth h to surface

$$T' = T = 2\pi \sqrt{\frac{R}{g}} = 2\pi \sqrt{\frac{R}{g}}$$

27. Answer (4)

$$X_m = \frac{I}{H} = 5000$$

$$\mu_r = 1 + X_m = 5001$$

28. Answer (2)

$$230 - (112 + 106) = 12 \text{ MeV}$$

29. Answer (1)

$$v_f = 5 + (\text{area under } a - t) = -2.5 \text{ m/s}$$

30. Answer (2)

5 kg block is slipping

$$a = \frac{(F_1 - F_2) - 5g\mu}{5} = 3 \text{ m/s}^2$$

$$\therefore \text{contact force} = 10 + 3 \times 2 = 16 \text{ N}$$

31. Answer (2)

$$\tan \theta = \frac{4H}{R} = \frac{4 \times 100}{400} \therefore \theta = 45^\circ$$

32. Answer (2)

$$\text{Area} = 40 = \frac{1}{2}mv^2 \therefore v = \sqrt{\frac{80}{0.1}} = 20\sqrt{2} \text{ m/s}$$

33. Answer (2)

$$n' = n \left[\frac{v + v_0}{v - v_s} \right]$$

34. Answer (3)

$$\text{Total length of wire} = 2\pi R n l$$

$$L = \mu_0 n^2 A l = \mu_0 n^2 \pi R^2 l$$

$$\therefore \text{Length} = \sqrt{\frac{4\pi L l}{\mu_0}}$$

35. Answer (4)

$$I_{\text{RMS}} = \sqrt{\frac{\int_0^T i^2 dt}{\int_0^T dt}} = \frac{T^2}{\sqrt{5}}$$

36. Answer (1)

$$\delta = (\mu - 1) A \text{ or } \delta = \mu A - A \therefore \text{at } \delta = 0 \Rightarrow \mu = 1$$

37. Answer (3)

38. Answer (2)

$$I_{\text{input}} = \frac{0.01}{1} = 0.01 \text{ mA}$$

$$I_{\text{Out}} = 50 \times 0.01 = 0.5 \text{ mA}$$

$$V_{\text{Out}} = 0.5 \times 5 = 2.5 \text{ V}$$

39. Answer (4)

$$\text{At } 16^\circ\text{C} \quad \frac{v_{16}}{2l} = n - 2$$

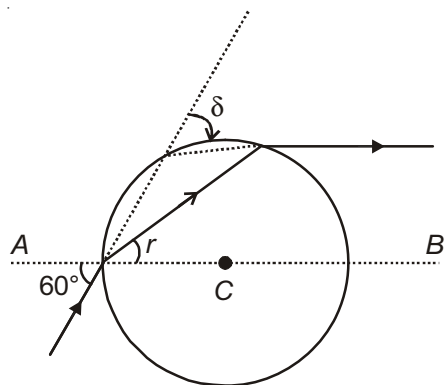
$$\text{At } 51^\circ\text{C} \quad \frac{v_{51}}{2l} = n + 2$$

$$\frac{v_{16}}{v_{51}} = \sqrt{\frac{289}{324}} = \frac{n-2}{n+2}$$

$$\frac{17}{18} = \frac{n-2}{n+2}$$

$$n = 70 \text{ Hz}$$

40. Answer (3)



$$\delta = 2(i - r)$$

$$60^\circ = 2(60 - r)$$

$$r = 30^\circ$$

$$\mu = \frac{\sin 60}{\sin r} = \frac{\sqrt{\frac{3}{2}}}{\frac{1}{2}} = \sqrt{3}$$

41. Answer (1)

$$t = \frac{1}{\lambda}$$

$$N = N_0 e^{-\lambda \times \frac{1}{\lambda}}$$

$$\frac{N}{N_0} = \frac{1}{e}$$

$$1 - \frac{N}{N_0} = 1 - \frac{1}{e}$$

$$\frac{\Delta N}{N_0} = \frac{e-1}{e}$$

42. Answer (3)

Energy in second excited state = - 1.51 eV

Energy required to make total energy zero

= + 1.51 eV

43. Answer (2)

$$E = W + \text{K.E.}$$

44. Answer (2)

$$\lambda = \frac{h}{mv}$$

According to Bohr

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

$$2\pi r = \frac{nh}{mv} = n\lambda$$

$$2\pi r = n\lambda$$

45. Answer (1)

$$R_{AB} = 30 + 30 = 60 \Omega$$

CHEMISTRY

46. Answer (2)

It is Markovnikov addition of water without rearrangement.

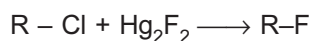
47. Answer (3)

 α -D-glucose and β -D-glucose are two cyclic form of glucose which convert into each other and open chain structure, this is known as mutarotation

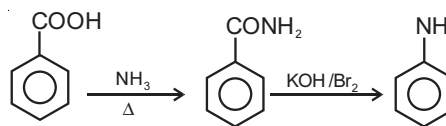
48. Answer (1)

Rate of S_N1 reaction \propto stability of carbocation.

49. Answer (2)



50. Answer (2)



51. Answer (4)

All three types of hydrocarbons can be produced from Kolbe's electrolytic method.

52. Answer (3)

53. Answer (3)

$$\therefore \text{No. of moles} = \frac{10}{20} = 1/2$$

$$\therefore \text{No. of molecules} = \frac{N_A}{2}$$

$$\therefore \text{No. of electrons} = 10 \times \frac{N_A}{2} = 5 N_A$$

54. Answer (4)

For $l = 2$,

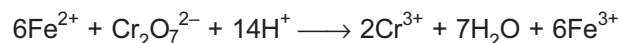
$$\begin{aligned} \text{Orbital angular momentum} &= \hbar \sqrt{l(l+1)} \\ &= \hbar \sqrt{2(2+1)} \\ &= \sqrt{6} \hbar \end{aligned}$$

For $l = 3$,

$$\begin{aligned} \text{Orbital angular momentum} &= \hbar \sqrt{3(3+1)} \\ &= \hbar \sqrt{12} \end{aligned}$$

$$\therefore \text{Ratio} = \sqrt{6} : \sqrt{12} = 1 : \sqrt{2}$$

55. Answer (3)



56. Answer (2)

$$m = \frac{x_B}{1-x_B} \times \frac{1000}{18}$$

$$5.55 = \frac{x_B}{1-x_B} \times 55.5$$

$$0.1 = \frac{x_B}{1-x_B}$$

$$0.1 - 0.1x_B = x_B$$

$$1.1x_B = 0.1$$

$$x_B = \frac{1}{11}$$

57. Answer (3)

$$\text{Amount converted to product} = a - \frac{a}{8} = \frac{7a}{8}$$

58. Answer (4)

$$\Delta H = E_{a(f)} - E_{a(b)}$$

$$\Rightarrow E_{ab} = 20 - (10) = 10 \text{ kJ mol}^{-1}$$

59. Answer (4)

60. Answer (1)

61. Answer (3)

Bakelite is used in making electrical switches.

62. Answer (1)

For isothermal reversible expansion

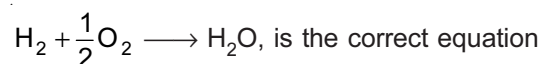
$\Delta E = 0$, and $\Delta H = 0$, for ideal gas

63. Answer (3)

64. Answer (1)

It is due to resonance.

65. Answer (2)



66. Answer (2)

$$\text{As } Q_c = \frac{(2)^2}{2 \times 2} = 1 \text{ as } Q_c > K_c$$

So reactions will shift in the backward direction

67. Answer (2)

$$\text{As } K_w = 10^{-12}$$

$$\therefore \text{pH of neutral water} = 6$$

68. Answer (3)

69. Answer (2)

70. Answer (4)

$$\text{As } \pi_1 = \pi_2$$

$$\therefore C_1 = C_2$$

$$\frac{5}{342} = \frac{1}{M}$$

$$\therefore M = \frac{342}{5} = 68.4$$

71. Answer (3)

72. Answer (2)

2Cl^- ions are removed So, Cl^- ions left = $4 - 1 = 3$

73. Answer (1)

74. Answer (2)

75. Answer (3)

$$K_a = \frac{\text{CH}_3\text{COO}^- [\text{H}^+]}{\text{CH}_3\text{COOH}}$$

$$10^{-5} = \frac{(0.1\alpha)(0.1\alpha + 0.1)}{0.1 - 0.1\alpha}$$

$$10^{-5} = \frac{(0.1\alpha)(0.1)}{(0.1)}$$

$$\alpha = 10^{-4}$$

76. Answer (4)
 77. Answer (3)
 78. Answer (1)
 79. Answer (4)
 80. Answer (4)
 Linkage, geometrical, ionization isomerism are possible.
 81. Answer (3)
 Intermediate is : CCl_2
 82. Answer (2)
 Buna-S is an addition polymer
 83. Answer (3)
 84. Answer (3)

$$\text{Na} + \text{NH}_3(\text{l}) \longrightarrow \text{NaNH}_2 + \frac{1}{2}\text{H}_2$$

 85. Answer (4)
 86. Answer (4)
 Electronic configuration $\Rightarrow t_{2g}^3 e_g^2$
 87. Answer (4)
 Inter halogen compounds are more reactive than halogens and nitrogen is very unreactive.
 88. Answer (2)
 89. Answer (4)
 90. Answer (3)

BOTANY

91. Answer (2)
 Osmoregulation – contractile vacuoles.
 92. Answer (1)
 G_2 -phase \rightarrow 80 pg
 Gametes \rightarrow 20 pg (products of meiosis-II)
 93. Answer (2)
 Kingdom monera was divided on the basis of cell wall and membrane composition.
 94. Answer (2)
 Dikaryophase is found in basidiomycetes and ascomycetes.
 95. Answer (4)
 Stem tendrils occurs in most of the plants of Cucurbitaceae family.
 96. Answer (2)
 Keel is characteristic feature of Fabaceae family.
 97. Answer (2)
 Bast fiber – Phloem fiber.
 98. Answer (1)
 99. Answer (1)
 Stamens are attached to perianth-Epiphyllous
 100. Answer (4)
 Thermoacidophiles – Chemoautotrophic and facultative anaerobes.
 101. Answer (4)
 102. Answer (1)
 Sporangiospore – Zygomycetes.
 103. Answer (3)
 Pollen kits help in sticking of pollen grains with insect body
 104. Answer (2)
 Cell elongation region.
 105. Answer (1)

$$\begin{array}{l} \text{RrYy} \times \text{RrYy} \\ \downarrow \\ \text{RrYy} \rightarrow 4 \\ \text{rrYy} \rightarrow 2 \\ \text{Rryy} \rightarrow 2 \\ \text{rryy} \rightarrow 1 \end{array}$$

 106. Answer (2)
 Cymose type.
 107. Answer (3)
 N_2O is a greenhouse gas
 108. Answer (3)
 Pericycle is parenchymatous.
 109. Answer (2)
 Hyphae is septate and ascospores are formed endogenously.
 110. Answer (2)
 Strobilus is found in – *Equisetum*, *Selaginella* and Gymnosperms.
 111. Answer (3)
 $\text{N, Mg, P, S} \rightarrow$ Macronutrients.
 112. Answer (3)
 Rice plants – C_3 plants.

113. Answer (2)
In fermentation, pyruvic acid is converted to CO_2 and ethanol.
114. Answer (1)
Triple response – Ethylene
Cell division – Cytokinin
Bolting – Gibberellins
115. Answer (1)
Internal fertilization – Bryophytes, pteridophytes, gymnosperms.
116. Answer (3)
Integument – diploid (2n)
Antipodal cell – haploid (n)
117. Answer (3)
Completely secondary meristem – Vascular cambium of root
118. Answer (3)
Pyrenoids store protein and starch
119. Answer (4)
Common in gram positive bacteria.
120. Answer (4)
121. Answer (1)
During G_1 -phase
122. Answer (2)
Amides are formed by addition of another amino group to amino acids
123. Answer (1)
Meiocytes $\rightarrow 2n = 24$
Number of bivalents = Number of haploid set of chromosomes.
Each bivalent is a tetrad with four chromatids.
124. Answer (1)
125. Answer (1)
More the number of solute particles, lower the ψ_s .
Most of the water flow occurs through apoplast.
Ca is an immobile element.
126. Answer (1)
Flocs \rightarrow Masses of aerobic bacteria associated with fungal filaments
127. Answer (2)
Somaclones – Genetically similar to parents as well as each other.
128. Answer (2)
129. Answer (4)
The inheritance of polygenic traits (trait controlled by two or more genes) is called polygenic or quantitative inheritance.
130. Answer (3)
Guanine – Purine
131. Answer (4)
SCP – Single cell protein.
132. Answer (4)
Anabaena – Biofertilizer.
133. Answer (3)
Hydrarch succesional series progress from hydric to mesic conditions.
134. Answer (3)
Maximum biodiversity – Angiosperms
135. Answer (3)
Eichhornia (water hyacinth) – “Terror of Bengal”.

ZOOLOGY

136. Answer (3)
Disturbance in genetic equilibrium or Hardy Weinberg equilibrium *i.e.* change of frequency of alleles in a population would be interpreted as resulting in evolution.
137. Answer (3)
Pneumonia, cholera and typhoid are bacterial diseases which can be cured using antibiotics. Common cold is caused by Rhinovirus and cannot be treated using antibiotics.
138. Answer (1)
Leydig cells or interstitial cells which are present in interstitial spaces produce a group of hormones called androgens, mainly testosterone.
139. Answer (3)
PEM affects large section of the population during drought, famine and political turmoil. It notably affected the population in Bangladesh during the liberation war and in Ethiopia during the severe drought of mid-eighties.
140. Answer (3)
Tunica interna of arteries have strong elastic membrane and more elongated endothelial cells.

141. Answer (2)

JGA is a special sensitive region formed by cellular modification of DCT and the afferent arteriole at the location of their contact.

142. Answer (2)

Gametocytes remain in the blood for several weeks but are unable to develop further due to high temperature of the human host. Mosquitoes are cold-blooded animals and it is therefore necessary for them to be taken into the body of *Anopheles* for further development.

143. Answer (4)

Probe is ss-DNA tagged with radioactive isotope used for identification of DNA with desired gene.

144. Answer (3)

In chordates CNS is dorsal, hollow and single.

145. Answer (3)

Branchiostoma (Amphioxus or lancelet) is Cephalochordate.

146. Answer (3)

α -interferons, acts as biological response modifiers to activate the immune system.

147. Answer (2)

GM plants have been developed to reduce reliance on chemical pesticide.

148. Answer (3)

149. Answer (4)

Cannabis sativa → Cannabinoids → Effect on cardiovascular system.

Erythroxylum coca → Cocaine → Sense of euphoria.

150. Answer (4)

151. Answer (2)

Protochordates include only urochordates and cephalochordates.

152. Answer (1)

Balanoglossus is hemichordate.

153. Answer (2)

154. Answer (1)

155. Answer (2)

Basophils are involved in inflammatory reactions.

156. Answer (3)

Thrombocytes or platelets are cell fragments formed from splintering of a large cell of bone marrow called the megakaryocyte.

157. Answer (3)

Electrical synapses are rare in our body.

158. Answer (2)

Oxytocin is the milk ejecting and birth hormone. Prolactin helps in formation of milk and development of mammary glands however oxytocin helps in releasing of milk. Pitocin is the synthetic form of oxytocin given to induce labor and lactation.

159. Answer (3)

JOINT**LOCATION**

Ball and socket joint

Between humerus and pectoral girdle

Pivot joint

Between atlas and axis

Gliding joint

Between carpals

Saddle joint

Between carpal and metacarpal

160. Answer (2)

161. Answer (2)

Fatty acids and glycerol being insoluble in water, cannot be absorbed into blood. They are first incorporated into small droplets called micelles which move into the intestinal mucosa. They are re-formed into very small protein coated fat globules called the chylomicrons which are transported into lymph vessels, which ultimately release the absorbed substances into blood.

162. Answer (4)

Reabsorption in Henle's loop is minimum.

163. Answer (3)

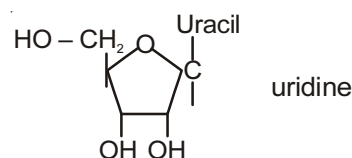
Knee jerk reflex is monosynaptic/simple reflex; so, no interneuron are involved.

164. Answer (1)

165. Answer (1)

166. Answer (1)

167. Answer (4)



168. Answer (2)

In the mid cycle positive feedback effect of estrogen on pituitary increases LH secretion. Ovarian cycle is regulated by hormones produced by pituitary. LH stimulates the formation of corpus luteum and also stimulates it to release progesterone and estrogen.

169. Answer (4)

Flatworms have blind sac type of body plan. The food will enter and leave through mouth only.

170. Answer (3)

171. Answer (2)

172. Answer (3)

173. Answer (3)

In competitive inhibition of enzyme action, K_m increases but V_{max} is same. V_{max} is same because competitive inhibition is reversible, on increasing the substrate concentration, the effect of the inhibitor is removed.

174. Answer (2)

Every 100 ml of oxygenated blood can deliver around 5 ml of O_2 to the tissues.

175. Answer (4)

Ionizing radiation like X-rays and non-ionizing radiation like UV cause DNA damage leading to neoplastic transformation.

176. Answer (3)

$$FRC = ERV + RV$$

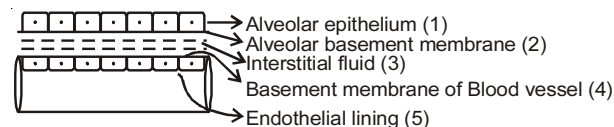
177. Answer (3)

Ascariasis is characterized by internal bleeding, muscular pain, fever and anaemia. Severe infection may result in intestinal blockage. Amoebiasis is characterized by abdominal pain, cramps and stools with excess mucus and blood clots. There is no intestinal blockage.

178. Answer (1)

LSD is a psychedelic drug which affects perceptions without any sensory stimulus.

179. Answer (3)



180. Answer (4)

AB^+ is universal recipient but can donate to only AB^+ .

