

(PAPER WITH ANSWERKEY) SET – 'Z'
NEET – 2017 (07.05.2017)
BIOLOGY

1. The vascular cambium normally gives rise to :

Ans. (1) Secondary xylem

2. Which of the following is made up of dead cells?

Ans. (1) Phellem

3. Double fertilization is exhibited by :

Ans. (2) Angiosperms

4. With reference to is not correct?

Ans. (1) C_3 plants respond to higher temperatures with enhanced photosynthesis while C_4 plants have much lower temperature optimum

5. Which statement is wrong for Krebs' cycle?

Ans. (2) The cycle starts with condensation of acetyl group (Acetyl CoA) with pyruvic acid to yield citric acid

6. Coconut fruit is a :

Ans. (3) Drupe

7. The morphological nature of the edible part of coconut is:

Ans. (1) Endosperm

8. Identify the wrong statement in context of heartwood:

Ans. (1) It conducts water and minerals efficiently

9. The final proof for DNA as the genetic material came from the experiments of :

Ans. (4) Hershey and Chase

10. Which one of the following is related to Ex-situ conservation of threatened animals and plants?

Ans. (3) Wildlife Safari parks

11. During DNA replication, Okazaki fragments are used to elongate:

Ans. (2) The lagging strand away from the replication fork.

12. Which of the following statements is correct?

Ans. (3) The ascending limb of loop of Hen impermeable of water.

13. Plants which produce characteristic pneumatophores and show vivipary belong to:

Ans. (4) Halophytes



14. Zygotic meiosis is characteristic of:

Ans. (3) **Marchantia**

15. Which among the following are the smallestwithout oxygen?

Ans. (1) **Mycoplasma**

16. A baby boy aged twowere absent?

Ans. (1) **Pre-molars**

17. Capacitation occurs in :

Ans. (2) **Female Reproductive tract**

18. The genotypes ofare possible?

Ans. (1) **4 genotypes; 3 phenotypes**

19. MALT constitutes about percent of the lymphoid tissue in human body.

Ans. (3) **50%**

20. Homozygous purelines in cattle can be obtained by :

Ans. (3) **mating of related individuals of same breed**

21. The function of copper ions in copper releasing IUD's is:

Ans. (3) **They suppress sperm motility and fertilizing capacity of sperms.**

22. Which one of the following statements is not valid for aerosols?

Ans. (1) **They cause increased agricultural productivity**

23. Among the following characters,on pea?

Ans. (4) **Trichomes-Glandular or non-glandular**

24. A disease caused by an autosomal primary non-disjunction is:

Ans. (3) **Down's Syndrome**

25. Select the correct route for the passage of sperms in male frogs:

Ans. (2) **Testes → vasa efferentia → Kidney Bidder's canal → Urinogenital duct Cloaca**

26. Which of the following cell to form ATP?

Ans. (2) **Mitochondrion**

27. Match the followingpapilloma - Virus

Ans. (3) **(ii) (iii) (iv) (i)**

28. Out of 'X' pairs oftheir explanation:

Ans. (3)

29. Which ecosystem has the maximum biomass?

Ans. (3) **Forest ecosystem**



30. Viroids differ from viruses in having:

Ans. (2) **RNA molecules without protein coat**

31. Select the mismatch:

Ans. (4) **Rhodospirillum - Mycorrhiza**

32. Good vision depends onvisual photopigments.

Ans. (3) **(A) and (B)**

33. Frog's heart when takenis autoexcitable.

Ans. (2) **(C) and (D)**

34. If there are 999 bases incodons altered?

Ans. (1) **33**

35. Artificial selection to obtain output represents:

Ans. (4) **Directional as it pushes the mean of the character in one direction**

36. The hepatic portal vein drains blood to liver from:

Ans. (2) **Intestine**

37. The water potential of pure water is:

Ans. (3) **Zero**

38. A temporary endocrine gland in the human body:

Ans. (1) **Corpus luteum**

39. Presence of plants arrangedseen best in:

Ans. (4) **Tropical Rain Forest**

40. Mycorrhizae are the example of:

Ans. (2) **Mutualism**

41. Thalassemia and sickle cell the correct statements.

Ans. (3) **Both are due to a qualitative defect in globilised chain synthesis.**

42. Which of the following are not polymeric?

Ans. (2) **Lipids**

43. The region of Biosphere.....is known as:

Ans. (3) **Core zone**

44. Which of the following RNAs should be most abundant in animal cell?

Ans. (3) **r-RNA**

45. What is the criterion for gel electrophoresis?

Ans. (4) **The smaller the fragment size, the farther it moves**



46. In case of poriferans, the spongocoel is lined with flagellated cells called:

Ans. (1) **choanocytes**

47. DNA replication in bacteria occurs:

Ans. (1) **Prior to fission**

48. Lungs are made up ofbecause of:

Ans. (3) **Residual Volume**

49. An important characteristicChordates is:

Ans. (1) **Ventral tubular nerve cord**

50. Asymptote in a logistic growth curve is obtained when:

Ans. (4) **K = N**

51. The association of histone H1 with a nucleosome indicates:

Ans. (1) **The DNA is condensed into a Chromatin Fibre.**

52. Fruit and leaf drop at early stages can be prevented by the application of :

Ans. (1) **Auxins**

53. Which of the following represents order of 'Ho

Ans. (4) **Perissodactyla**

54. Which of the following are found in extreme same conditions?

Ans. (3) **Archaeobacteria**

55. Alexander Von Humbolt described for the time:

Ans. (1) **Species area relationships**

56. Spliceosomes are not found in cells of :

Ans. (2) **Bacteria**

57. Which one of the following statements is correct with reference to enzymes?

Ans. (4) **Holoenzyme = Apoenzyme + Coenzyme**

58. Adult human RBCs arethis feature?

Ans. (3) **only (d)**

59. Which among these is the correct combination of aquatic mammals?

Ans. (1) **Whales, Dolphins, Seals**

60. Receptor sites for neurotransmitters are present on:

Ans. (2) **post-synaptic membrane**

61. DNA fragments are:

Ans. (4) **Negatively charged**



62. The process of separation and purification of expressed protein before marketing is called:

Ans. (4) **Downstream processing**

63. Flowers which have single ovule in thepollinate by:

Ans. (4) **Bee**

64. Functional megaspore in an angiosperm developed into:

Ans. (1) **Embryo sac**

65. Which one from those givenhybridization experiments?

Ans. (3) **1856 - 1863**

66. An example of colonial alga is:

Ans. (4) **Volvox**

67. Transplantation of tissues/.....rejections?

Ans. (4) **Cell-mediated immune response**

68. In case of a couple where thefor fertilization?

Ans. (1) **artificial insemination**

69. Attractants and rewards are required for:

Ans. (4) **Entomophily**

70. Select the mismatch:

Ans. (3) **Pinus - Dioecious**

71. GnRH, a hypothalamic hormone, needed in reproduction, acts on:

Ans. (4) **Anterior pituitary gland and stimulates secretion of LH and FSH**

72. Which cells of 'Crypts of Lieberkuhn' secrete antibacterial lysozyme?

Ans. (3) **Argentaffin cells**

73. Myelin sheath is produced by:

Ans. (3) **Schwann Cells and Oligodendrocytes**

74. Which of the following components provides sticky character to the bacterial cell?

Ans. (2) **Glycocalyx**

75. A gene whose expression helps to identify transformed cell is known as:

Ans. (3) **Selectable marker**

76. Root hairs develop from the region of:

Ans. (3) **Maturation**

77. Life cycle of Ectocarpus and Fucus respectively are:

Ans. (1) **Haplodiplontic, Diplontic**



78. Which of the following options givesduring mitosis?

Ans. (4) **Condensation → nuclear membrane disassembly → arrangement at equator
→ centromere division → segregation → telophase**

79. The pivot joint between atlas and axis is a type of:

Ans. (1) **Synovial joint**

80. Phosphoenol pyruvate (PEP) is the primary CO₂ acceptor in :

Ans. (4) **C₄ plants**

81. Hypersecretion of Growthin height, because:

Ans. (4) **Epiphyseal plates close after adolescence.**

82. Which of the following is correctly matched for the product produced by them?

Ans. (2) **Sacchromyces cerevisiae : Ethanol**

83. A decrease in blood pressure/volume will not cause the release of:

Ans. (4) **Atrial Natriuretic Factor**

84. Which of the following options best represents the enzyme composition of pancreatic juice?

Ans. (2) **Lipase, Amylase, trypsinogen, procarboxypeptidase**

85. A dioecious flowering plant prevents both:

Ans. (4) **Autogamy and geitonogamy**

86. Which of the following facilitates opening of stomatal aperture?

Ans. (1) **Radial orientation of cellulose microfibrils in the cell wall of guard cells**

87. The DNA fragments separated on anafter staining with :

Ans. (2) **Ethidium bromide**

88. In Bougainvillea thorns are the modifications of

Ans. (1) **Stem**

89. Anaphase Promoting Complex (APC)expected to occur?

Ans. (1) **Chromosomes will not segregate**

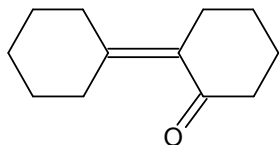
90. Which of the following in sewage treatment removed suspended solids?

Ans. (1) **Primary treatment**



CHEMISTRY

91. Of the following, which is followed by heating?



Ans. (4)

92. The most suitable method of separation of 1 : 1 mixture of ortho and para-nitrophenols is:

Ans. (2) **Steam distillation**

93. The species, having bond angles of 120° is:

Ans. (2) BCl_3

94. The equilibrium constants of will be :

Ans. (4) $\frac{K_2 K_3}{K_1}$

95. Which one is the wrong statement?

Ans. (2) **The energy of 2s orbital is less than the energy of 2p orbital in case of Hydrogen like**

96. $HgCl_2$ and I_2 both when dissolved species formed is:

Ans. (1) HgI_4^{2-}, I_3^-

97. An example of a sigma bonded organometal compound is:

Ans. (4) **Grignard's reagent**

98. The correct statement regarding electrophile is:

Ans. (2) **Electrophile can be either neutral or positive charged species and can form a bond accepting a pair of electrons from nucleophile**

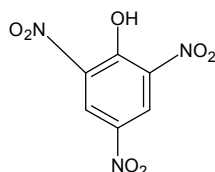
99. Name the gas that can readily decolourise acidified $KMnO_4$ solution:

Ans. (4) SO_2

100. The heating of phenyl-methyl ethers with HI produces.

Ans. (1) **phenol**

101. Which one is the most acidic compound?



Ans. (2)



102. For a given reaction,vary with temperature?

Ans. (4) $T > 425K$

103. The correct order of the stoichiometriesrespectively is:

Ans. (1) $3AgCl, 2AgCl, AgCl$

104. In the electrochemical cell : E_1 and E_2 ?

Ans. (1) $E_1 > E_2$

105. Ionic mobility of which of the followingelectric field?

Ans. (2) Li

106. Correct increasing order for thecomplete Co^{3+} is:

Ans. (3) $[Co(en)_3]^{3+}, [Co(NH_3)_6]^{3+}, [Co(H_2O)]$

107. Mixture of chloroxylenol and terpineol acts as

Ans. (4) Antiseptic

108. Predict the correct intermediate and product in following reaction:

Ans. (2)

109. It is because of inabilityin bonding that:

Ans. (3) Sn^{2+} in reducing while Pb^{4+} is oxidising

110. With respect to the conformers of ethane, which of the following statements is true?

Ans. (2) Both bond angles and bond length remains same

111. Which of the following pairs of compounds is isoelectronic and isostructural?

Ans. (Bonus)

112. The reason for greater range of oxidation states in actinoids is attributed to:

Ans. (1) 5f, 6d and 7s levels having comparable energies

113. Which of the following statements is not correct?

Ans. (2) Denaturation makes the proteins more active

114. Mechanism of a hypothetical react $X_2 + Y_2 \rightarrow 2XY$ is given below:

Ans. (2) 1.5

115. Which one of the following statements is correct?

Ans. (4) The value of reaction equilibrium.

116. Concentration of the Ag^+ ions in aof $Ag_2C_2O_4$ is:

Ans. (2) 5.3×10^{-12}



117. Which of the following is dependent temperature?

Ans. (4) **Molarity**

118. If molality of the dilute solution is doubled,will be:

Ans. (2) **Unchanged**

119. A gas is allowed toin joules will be:

Ans. (1) **- 505 J**

120. A first order reaction has a specificreduce to 5g?

Ans. (4) **138.6 sec**

121. Pick out the correct statement with respect to $[Mn(CN)_6]^{3-}$:

Ans. (1) **It is d^2sp^3**

122. Match the interhalogen compounds ofthe correct code.

Ans. (4) **(iii) (i) (iv) (ii)**

123. The correct increasing order of basic strength for the following compounds is:

Ans. (2) **II < I < III**

124. Which of the following is a sink for CO?

Ans. (4) **Micro organisms present in the soil**

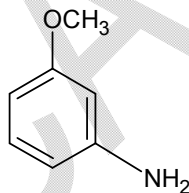
125. The element Z=114 has been discoveredelectronic configuration?

Ans. (4) **Carbon family, $[Rn]5f^{14}6d^{10}7s^27p^2$**

126. Which of the following reactions isto methanamine?

Ans. (4) **Hoffmann hypobromamide reaction**

127. Identify A and predict the type of reaction



Ans. (3) **and substitution reaction**

128. A 20 litre container at 400 K containsvalue, will be:

Ans. (3) **5 litre**

129. Consider the reactions:Identify A, X, Y and Z.

Ans. (1) **A- Ethanal, X – Ethanol, Y- But-2-enal, Z-Semicarbazone**

130. Which one of the following pairs of species have same bond order?

Ans. (1) **CN^- , CO**



131. In which pair of ions both the species contain S-S bond?

Ans. (4) $S_4O_6^{2-}, S_2O_3^{2-}$

132. Extraction of gold and silver involves leachingrecovered by:

Ans. (2) **Displacement with Zn**

133. Which one is the correct order of acidity?

Ans. (4) $CH \equiv CH > CH_3 - C \equiv CH > CH_2 = CH_2 : CH_3 - CH_3$

134. Which is the incorrect statement?

Ans. (2 or 3)

135. The IUPAC name of the compound

Ans. (3) **3-Keto-2methylhex-4-enal**

PHYSICS

136. The two nearest harmonics of aof the system?

Ans. (2) **40 Hz**

137. Two Polaroids P_1 and P_2 through P_2 is:

Ans. (1) $\frac{I_0}{4}$

138. An arrangement of three parallel 'B' is given by:

Ans. (2) $\frac{\mu_0 i^2}{\sqrt{2}\pi d}$

139. A gas mixture consists of 2 molesof the system is:

Ans. (2) **11 RT**

140. Two astronauts are floating in gravitational free space after having lost contact with their spaceship. The two will:

Ans. (4) **move towards each other.**

141. If θ_1 and θ_2 be the θ is given by:

Ans. (3) $\cot^2 \theta = \cot^2 \theta_1 + \cot^2 \theta_2$

142. A 250 - Turn rectangular coil of lengththe torque is:

Ans. (3) $9.1\mu J$



143. Radioactive material 'A' has decay 'A' will be $\frac{1}{e}$?
- Ans. (4) $\frac{1}{7\lambda}$
144. In an electromagnetic wave in magnetic field is:
- Ans. (4) $2.83 \times 10^{-8} T$
145. The acceleration due to gravity of earth. Then:
- Ans. (2) $d = 2 \text{ km}$
146. The given electrical network is equivalent to:
- Ans. (1) **NOR gate**
147. The bulk modulus of in radius is:
- Ans. (2) $\frac{p}{3B}$
148. Suppose the charge of a proton and of the order of
- Ans. (1) $10^{-37} C$
149. A spring of force constant k is cut into Then $k' : k''$ is :
- Ans. (1) **1 : 11**
150. The x and y coordinates of at $t = 2s$ is:
- Ans. (1) $-4m / s^2$
151. Consider a drop of rain water having force of air is:
- Ans. (2) **(i) 10 J (ii) -8.75 J**
152. Two blocks A and B of masses , are respectively:
- Ans. (4) $\frac{g}{3}, g$
153. A particle executes liner in second is:
- Ans. (1) $\frac{4\pi}{\sqrt{5}}$
154. Two discs of same moment of during this process is:
- Ans. (4) $\frac{1}{4} I (\omega_1 - \omega_2)^2$
155. The resistance of a wire is 'R' resistance will be:
- Ans. (1) $n^2 R$
156. A spherical black body with a in watt would be:
- Ans. (2) **1800**



157. The photoelectric threshold $2536 \times 10^{-10} \text{ m}$ is:

Ans. (3 or 4) (iii) $\approx 6 \times 10^5 \text{ ms}^{-1}$ or (iv) $\approx 0.6 \times 10^6 \text{ ms}^{-1}$

158. A beam of light from a source L is θ is given by:

Ans. (3) $\frac{y}{2x}$

159. A rope is wound around a hollow a force of 30 N?

Ans. (1) $25 \text{ rad} / \text{s}^2$

160. One end of string of length l is tension in the string)

Ans. (3) T

161. Thermodynamic processes Isothermal

Ans. (4) P-c, Q-a, R-d, S-b

162. A physical quantity of the gravitation at e is charge]:

Ans. (3) $\frac{1}{c^2} \left[G \frac{e^2}{4\pi \epsilon_0} \right]^{\frac{1}{2}}$

163. Young's double slit experiment is first medium is nearly:

Ans. (2) 1.78

164. A potentiometer is an accurate and the method involves:

Ans. (1) a condition of no current flow through the galvanometer

165. The ratio of wavelengths of the last line of Balmer series and the last line of Lyman series is:

Ans. (1) 4

166. The diagrams below show regions of equipotentials.

Ans. (4) In all the four cases the work done is the same.

167. Which of the following statements are correct?

Ans. (3) (b) and (d)

168. The ratio of resolving powers of an optical $\lambda_2 = 6000 \text{ \AA}$ is :

Ans. (1) 3 : 2

169. A capacitor is charged by of resulting system:

Ans. (4) decreases by a factor of 2

170. A U tube with both ends open to the oil is:

Ans. (2) 928 kgm^{-3}



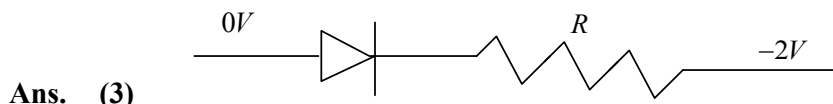
171. Figure shows a circuit thatthe switch closed is,...

Ans. (1) 2 A

172. The de-Broglie wavelengthand mass m , is:

Ans. (4) $\frac{h}{\sqrt{3mkT}}$

173. Which one of the following represents forward bias diode?



174. Two rods A and B of differentcomposite rod will be:

Ans. (3) $\frac{K_1 + K_2}{2}$

175. A carnot engine havingat lower temperature is:

Ans. (4) 90 J

176. In a common emitter transistorthe amplifier is:

Ans. (1) 150 and 15000

177. Preeti reached the metro stationescalator will be:

Ans. (1) $\frac{t_1 t_2}{t_2 + t_1}$

178. A thin prism having refractingprism should be:

Ans. (4) 6°

179. A long solenoid of diameterthis time is:

Ans. (1) $32\pi\mu C$

180. Two cars moving in opposite directionssound of 340 m/s] :

Ans. (2) 448Hz

END OF NEET PAPER





Though **medical** team at CatalyseR has taken utmost care in drafting the answers.

But due to early documentation & printing, an error of $\pm 5\%$ may occur.

Answer should be taken in that respect.



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