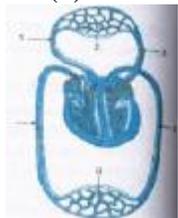


BIOLOGY

1. Green and red colored seeds are recessive and dominant trait respectively. Out of F1 and F2 in which generation will the green seed appear, if both parents are not hybrid.
2. Species A shared ten characteristics with species B, species C share fifteen characteristics with D which of the two pairs share closer relation.
3. Dead remains of two species A and B were buried. Later only A's body was found to be a fossil but not B's give reason.
4. After the death of two insects, one of the insect was buried in hot mud and the other is usually found mud. Which of the two is more likely to be preserved better and why?
5. With the help of an example explain how is genes control characteristics or traits.
6. Male has 23 pairs of chromosomes and female has 23 pairs of chromosomes.
Then why don't an offspring have 46 pairs of chromosomes which is obtained by the fusion of these two eggs.
7. What is a genetic drift?
8. What are the uses of fossils?
9. What term did Mendel use for genes? Where are the genes located?
10. What is the effect of DNA copying which is not perfectly accurate on the reproduction process?
11. "We cannot pass on to our progeny the experiences and qualifications earned during our life time". Justify the statement giving reason and examples. (CBSE 2015)
12. How many pairs of chromosomes are present in human beings? Out of these how many are sex Chromosomes? How many types of sex chromosomes are found in human beings? "The sex of a newborn child is a matter of chance and none of the parents may be considered responsible for it". Draw a flow chart showing determination of sex of a newborn to justify this statement. (CBSE 2015)
13. Tabulate two distinguishing features between acquired traits and inherited traits with one example of each. (CBSE2013)
14. "The sex of a newborn child is a matter of chance and none of the parents may be considered responsible for it." Justify this statement with the help of flow chart showing determination of sex of a newborn. (CBSE 2013)
15. A cross was made between pure breeding pea plants one with round and green seeds and the other with wrinkled and yellow seeds.
 - (a) Write the phenotype of F1 progeny. Give reason for your answer.
 - (b) Write the different types of F2 progeny obtained along with their ratio when F1 progeny was selfed (CBSE 2014)
16. Define the term evolution. "Evolution cannot be equated with progress". Justify this statement (CBSE 2012)
17. Distinguish between homologous organs and analogous organs. In which category would you place wings of a bird and wings of a bat? Justify your answer giving a suitable reason. (CBSE 2012)
18. Explain the terms:
 - (i) Speciation (ii) Natural selection (CBSE 2011)
19. Explain Mendel's law of independent inheritance. Give one example (CBSE 2011)
20. (a) Give the evidence that the birds have evolved from reptiles.
(b) Insects, octopus, planarian and vertebrates possess eyes. Can we group these animals together on the basis of eyes that they possess? Justify your answer giving reason. (CBSE 2014)
21. What are different methods of reproduction?
22. Name two plants that are bisexual.
23. What is pollination/.
24. When does DNA copying occur?
25. How does the embryo get nourishment?
26. What is STD? Name two STDs.
27. Explain process of sexual reproduction in plants.
28. With the help of diagrams explain process of budding in Hydra.
29. Name the one unisexual plant.
30. Name on organism that grows by multiple fission.
31. Name two plants that are grown by vegetative propagation. (CBSE 2016)
32. What is reproduction? Explain two advantages of sexual reproduction over asexual reproduction (CBSE 2016)
33. What is reproduction? Mention the importance of DNA copying in reproduction. (CBSE 2008)

34. List any two differences between pollination and fertilization. (CBSE2008)
35. Name two sexually transmitted disease caused due to infection and viral infection. How it can these be prevented? (AI 2008)
36. Explain the terms:
- Implantation
 - Placenta
 - What is the average duration of human pregnancy? (CBSE 2009)
37. Why is DNA copying is an essential part of the process reproduction? (AI 2009)
38. List any four methods of contraception used by humans. How does their use have a direct effect on the health and prosperity of a family? (CBSE 2015)
39. Define the terms pollination and fertilization. Draw a diagram of a pistil showing pollen tube growth into the ovule and label them:
OR
Describe in brief the role of (i) testis (ii) seminal vesicle, (iii) vas deferens, (iv) ureter and (v) prostate gland in human male reproductive system (CBSE 2012)
40. (a) Draw a diagram of the longitudinal section of a flower and label on it sepal, petal, ovary and stigma.
(b) Write the names of male and female reproductive parts of a flower. OR
- (a) What is fragmentation in organisms? Name a multicellular organism which reproduces by this method.
(b) What is regeneration in organism? Describe regeneration in Planaria with the help of a suitable diagram. (CBSE 2011)
41. How is 'respiration' different from 'breathing'? Explain the process of aerobic and anaerobic respiration.
42. I) Name the blood vessel that brings oxygenated blood to the human heart.
II) Which chamber of the heart received oxygenated blood?
III) Explain how is the oxygenated blood from this particular chamber sent to all the body parts?
43. Explain the schematic representation of gaseous exchange in tissues.
44. Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structures and functioning?
45. What is the significance of emulsification of fats?
46. Why is the small intestine in herbivores larger than in carnivores?
47. What is the advantage if a four chambered heart?
48. Explain the process by which inhalation occurs during breathing in human beings?
49. In human alimentary canal, name the site of complete digestion of various components of food. Explain the process of digestion. [CBSE (CCE) 2012]
50. List in tabular form, three differences between arteries and veins. [CBSE (CCE) 2012]
51. List the three kinds of blood vessels of human circulatory system and write their functions in tabular form. [CBSE I CCE) 2012]
52. (a) "The breathing cycle is rhythmic whereas exchange of gases is a continuous process". Justify this statement.
(b) What happens if conducting tubes of circulatory system develops a leak? State in brief, how could this be avoided?
(c) How opening and closing of stomata takes place? [CBSE (CCE) 2011]
53. Draw a diagram of the front view of human heart and label any six parts including at least two that are concerned with arterial blood supply to the heart muscles. [CBSE (CCE) 2011]
54. Describe in brief the function of kidneys, ureters, urinary bladder and urethra. [Foreign 2010]
55. Explain the process of breakdown of glucose in a cell
- In the presence of oxygen,
 - In the absence of oxygen. [HOTS, Foreign 2010]
56. (i) Label any 4 parts in the given diagram.
(h) What are the two functions represented in this diagram?



57. What is double circulation in human beings? Why is it necessary?
58. (a) Name two different ways in which glucose is oxidised to provide energy in various organism.
(b) Write any two differences between the two oxidation of glucose in organisms. [AI 2008]
59. Write any three differences between aerobic and anaerobic respiration. [HOTS, NCERT Exemplar, NCERT, AI 2008]
60. (a) Name the process by which autotrophs prepare their food.
(b) List the three events which occur during this process.
(c) State two sources from which plants obtain nitrogen for the synthesis of proteins and other compounds.
61. What is bad ozone?
62. Differentiate between natural and artificial ecosystem.
63. Why are plastic bags non-biodegradable?
64. Name two decomposers and two producers.
65. Why are pesticides considered as pollutants despite being useful to the farmers?
66. Name two artificial eco-system.
67. What is the role of consumers in the food chain?
68. Give one advantage and one disadvantage of ozone.
69. What is an ecosystem? Mention its components.
70. Difference between biodegradable and non-biodegradable substance.
71. Why are green plants called producers?
72. What are the two main components of our environment?
73. What are decomposers? Write their importance with respect to our environment. (2)
74. Write the causes of depletion of ozone layer. How can we prevent it? (3)
75. Explain the formation of ozone layer. (2)
76. Mention three information obtained from the energy flow diagram. (3)
77. What are food chains and food webs? Why are smaller food chains better? (4)
78. Energy flow in a food chain is unidirectional. Explain (3)
79. Give any three methods to reduce the problem of waste disposal. (3)
80. Differentiate between natural and artificial ecosystem. (2)
81. Write the full form of UNEP. (1)
82. Write the names of any two decomposers. (2)
83. List down the raw materials for photosynthesis? (1 Mark)
84. Specify what is the role of bile juice in the process of digestion? (1 Mark)
85. Name the respiratory organ in fish and earthworm. (1 Mark)
86. Name the types of blood vessels used for the transportation of blood. (1 Mark)
87. What is dialysis? (1 Mark)
88. How is respiration in plants and respiration in animals different? (2 Marks)
89. Draw the labeled diagram of the human digestive system. (2 Marks)
90. How are alveoli designed and why? (2 Marks)
91. Define excretion. What are the two organs in human beings that act as accessory excretory organs? (2 Marks)
92. State the role of the following (i) Chloroplasts (ii) Diaphragm (iii) Larynx (3 Marks)
93. Give reasons for the following:
(i) The glottis is guarded by epiglottis.
(ii) It is said to not speak while eating.
(iii) Walls of trachea are supported by cartilage rings. (3 Marks)
94. Leaves of a potted plant were coated with wax to block the stomata.
Will this plant remain alive and healthy for long? State three reasons for your answer. (3 Marks)
95. Describe the process and importance of double circulation in humans. (3 Marks)
96. (i) Name the blood vessel that brings oxygenated blood to the human heart. (5 Marks)
(ii) Which chamber of human heart receives oxygenated blood?
(iii) Explain how oxygenated blood from this chamber is sent to all parts of the body.
97. Define biodiversity.
98. Name the bacteria whose presence in the water indicates its contamination with disease causing microbes.

99. Name the place where Chipko Andolan was organized.
100. Name the gas responsible for global warming.
101. Who started Chipko Movement?
102. Why do we need to use resources carefully?
103. Prejudice against the traditional use of forests has no basis. Comment.
104. Which is better recycle or reuse? Give reason with example.
105. Give three measures that can lower the use of coal and petroleum.
106. What is rain water harvesting? How can it be done at local level? What are the benefits?
107. List two traditional system of water harvesting. (CBSE 2008 F)
108. List four changes you would incorporate in your life cycle in a move towards sustainable use of available resources.
109. State two reasons of each of conserving (AI CBSE 2008)
- Forest
 - Wild life
110. What are natural resources? State two factors that work against an equitable distribution of these resources. (AI CBSE 2009)
111. Why must we conserve our forests? List any two causes for forestation taking place. (AI CBSE 2009)
112. What is Chipko Movement? Why should we conserve forests? (AI CBSE 2009)
113. List four advantage of water harvesting. (AI CBSE 2009)
114. How do advantages of exploiting natural resources with short term aims differ from the advantages of managing our resources with a long term perspective? (CBSE 2009 F)
115. What is wild life? How is wild life important for us? (CBSE 2009 F)
116. List any two causes of our failure to sustain availability of underground water. (CBSE 2009)
117. What are 3 R's used to save environment? 1
118. Why fossil fuels should be used judiciously? 1
119. Name any one stakeholder. 1
120. What are the products formed when coal and petroleum are burnt? 2
121. Why the forests are called as biodiversity hot spots? 2
122. Name two industries based on forest produce. 2
123. What are the advantages of water? Explain it with respect to forest, wildlife and water resources.4
124. Dams are constructed on the river for multipurpose use. Give its advantages and disadvantages. 4
125. How does mining cause pollution? 2
126. Why it is necessary to conserve water and wildlife? 1
127. Name two nucleic acids? (1)
128. What happens during copying of DNA? (1)
129. Why does organism reproduce? (1)
130. What is binary and multiple fission? Name the organism in which they occur. (3)
131. How do potato and Bryophyllum plants reproduce vegetatively? (2)
132. Devise an experiment to show germination of gram seed. (3)
133. Draw well labeled diagram of a bisexual flower. (3)
134. What is self and cross pollination? (2)
135. State the functions of
- Testis
 - Ovaries
 - Vas deferens
 - Stamen
 - Pistil (5)
136. What are the different methods of contraception in males and female human beings? (4)
137. Name two human traits that show variation. (1)
138. What is microevolution? (1)
139. Who is known as the Father of genetics? (1)
140. Why evolution should not be equated with progress? (1)

141. How many pairs of chromosomes do human beings have, specify the types of chromosomes also? (2)
142. How is the sex of the child determined in human beings? (2)
145. What is the speciation? How does it occur? (2)
146. Define evolution. State Darwin's theory of evolution. (5)
147. What are the various evidences in factors of evolution? (4)
148. Which of the following pair of sex chromosomes produces a male and a female child- XX or XY? (1)

ONE MARK QUESTIONS

- 1 Name or give one term for the following
a) Branched protoplasmic extension of the cell body
b) Part of the brain that coordinate muscular activity
2 Give an example for plant hormone that promotes the growth.
3 Name the receptors for taste and smell.
4 Why is the use of iodized salt advisable?
5 Which part of the brain maintains posture and equilibrium of the body?

TWO MARK QUESTIONS

- 6 What are: a) Cranial nerves b) Spinal nerves
7 What are synapses? What happens at the synapse between two neurons?
8 Define the terms 1. Phototropism 2. Geotropism 3. Chemotropism
9 How does muscle fibers bring about movement by shortening the muscle fiber?
10 How does chemical coordination occur in plants?
11 How is the movement of a leaves of the sensitive plant different from the movement of a shoot towards light?
12 What are the short fibers of a neuron known as? Mention their function.
13 What are the long fibers of a neuron known as? Mention their function.

THREE MARK QUESTIONS

- 14 Hind brain consists of three parts .What are they? Mention the functions of each.
15 What are the components of a fore brain in human? Write the functions of the same.
16 Draw a neat diagram of human brain and label any six parts.
17 What is neuromuscular junction? Draw a diagram of neuromuscular junction.
18 Draw a neat diagram of reflex arc and explain their pathway.
19 How does our body respond when adrenaline is secreted into the blood?
How do auxin promote the growth of a tendril around a support?
21 Draw the structure of a neuron and explain its function.

EXTRA QUESTIONS

- 1 Which signals will get disrupted in case of a spinal cord injury?
2 What is the function of receptors in our body? Think of situations where receptors do not work properly. What problems are likely to arise?
3 Why are some patients of diabetes treated by giving injections of insulin?
4 a) What is the difference between sensory neuron and motor neuron? b) Which part of the human brain is responsible for auditory reception and sensation of smell?
5 a) Name the two main constituents of the Central Nervous system in human beings. b) What is the need for a system of control and coordination in human beings?
6 a) Distinguish between voluntary and involuntary actions in our bodies b) Choose involuntary actions from amongst the following Reading , beating of heart , salivation in the mouth on viewing a tasty food , talking