10th science Test

Biology

Q1. What is the role of acid in our stomach? 2

Q2. Give two differences between veins & Arteries? 2

Q3. How are lungs designed in human being to maximize the area for exchange of gases? 2

Q4. What are the different ways in which glucose is oxidized to provide energy in various organisms? 3

Q5. Explain the functioning of human heart? 3

Q6. Name two ancient ways of water harvesting and the regions where they were used. 2

Q7. What is monoculture? Which two stake holders prefer monoculture and why? 3

Q8. What is khadin? 1

Q9. What was Ganga Action plan? 1

Q10. Why are large dams opposed by nature enthusiasts? 2

Q11. Give the function and source of insulin harmone. 1

Q12. Name the unit of inheritance. Write its function. 1

Q13. What will be the amount of energy available to the organism of the 2nd trophic level of a food chain, if the energy avaible at the first trophic level is 10000 jules? 3

Q14. Write any three advantage of vegetative propagation. 3

Q15. Define the following terms. 3

(i) Recycling
(ii) Sustainable development
(iii) Chipko Andolan

Q16. Draw a neat diagram of on excretory unit of human kidney and label the following parts. 5

(i) Bourman's capsule
(ii) Renal Artery
(iii) Glomerulus
(iv) Collecting unit 5

Q17. (a) '' Fossils are related to evolution. '' justify this statement. Give two ways by which age of fossils can be estimated. 5

(b) List two differences between acquired trait and inherited trait.

Q18. Draw a diagram showing various parts of an embryo of a dicot seed. 2

Q19. Mention the observation of budding in yeast. 2

Q20. Where does digestion of fat take place in our body. 1

Q21. Name the acid present in (i) Neetle sting (ii) Curd) 2

Q22. Draw a diagram of the human urinary system and label in it: 2

(i) Kidney (ii) Ureter (iii) Urinary Bladder (iv) Urethra

Q23. Draw a well labelled diagram of neuron. 2

Q24. Differentiate between Aerobic and Anaerobic respiration. 3

Q25. Explain the nutrition in an Amoeba with diagram. 3

Q26. What was ''Chipko Andolan''? How did this Andolan ultimately benefit the people and the Environment? 3

Q27. Diagrammatically explain the '' human endocrine system'' in females. 5

Q28. Describe double circulation in human being with diagram by explaining how blood flows From heart to other organ and then heart to lungs. 5

Q29. Diagrammatically explain the process of human digestive system. 5

Q30. Why is the damage of ozone layer a cause of concern to us? State a cause of this Damage. 2

Q31. List four advantages of water stored in the ground as ground water. 2

Q32. Write one example each of the following tropic movements:
(a) Positive phototropism (b) negative phototropism (c) positive geotropism
(d) negative geotropism (e) hydrotropism (f) chemotropism 3

Q33. A blue coloured flower plant denoted by BB is crossbred with that of white coloured Flower plant denoted by bb. 3
(a) State the colour of flower you would expect in their F_1 generation plants.
(b) What must be the percentage of white flower plants in F_2 generation if flowers of F_1 plants are self pollinated?
(c) State the expected ratio of the genotypes BB and Bb in the F_2 progeny.

Q34. Distinguish between homologous organs and analogous organs. In which category would You place wings of bird and wings of bat? Justify your answer giving a suitable reason. 3

Q35. (a) Draw a sectional view of human female reproductive system and label the parts Where: 5
(i) egg develop (ii) fertilization takes place (iii) fertilized egg gets implanted
(b) Describe in brief the changes that the uterus undergoes:
(i) to receive the zygote (ii) if zygote is not formed

Q36. (a) Distinguish between pollination and fertilization. Mention the site and product of Fertilization in the flower. 5
(b) Draw a neat diagram of pistil showing pollen tube growth and its entry in to the ovule?

Q37. (a) State the form in which the following are stored: 5
(i) Unused carbohydrates in plants (ii) energy derived from food in humans
(b) Why do we get cramps during sudden muscular activity?
(c) Name the site for cellular respiration.
(d) Why plants have low energy needs?
(e) Write the function of liver in human digestive system.

Q38. What precautions are necessary for preparation of temporary mount of leaf peel to show Stomata. 2

Q39. Draw a well labelled diagram to show various stages of binary fission in amoeba. 2

Q40. Explain how pesticides enter a food chain and subsequently into our body. 2

Q41. Why should we conserve forests and wild life? 2

Q42. Write the hormone secreted by the following glands and also write function for each. 3
(a) Pituitary gland (b) Pancreas (c) thyroid gland

Q43. Explain with the help of flow chart- ‘’what determines the sex of a child genetically’’? 3

Q44. What is speciation? List factors which could lead to speciation. 3

Q45. (a) What is the role of seminal vesicles and prostate gland? 5
(b) What are the three categories of contraception methods? Write briefly about each.

Q46. (a) What are the methods used by plants to get rid of excretory products? 5
(b) Write events occur during the process of photosynthesis. Write balanced chemical Equation for photosynthesis.

Q47. A student set up the apparatus for the experiment to show CO_2 is released during During respiration. He kept a small test tube containing KOH solution is conical flaks? 2
(a) Why he kept small test tube containing KON solution is conical flask?

(b) What he will observe after 2 hrs. of setting the experiment.

Q48. Give an example of a flower which contains both stamens and carpels. 1

Q49. Mention any one point of difference between pepsin and trypsin. 1

Q50. Why is there a need to harness non-conventional sources of energy? Give two main Reasons. 2

Q51. Explain the ways in which glucose is broken down in absence of oxygen. 3

Q52. How do Mendel's experiments show that traits may be dominant or recessive? 3

Q53. Why are fossils considered important in the study of evolution? Explain two ways by Which age of fossils can be estimated? 3

Q54. Our government launches campaigns to provide information about AIDS prevention, Testing and treatment by putting posters, conducting radio shows and using other agencies of advertisements. 3

1. To which category of diseases AIDS belong? Name its causative organism.

2. Which kind of value is government trying to develop in the citizens by conducting the above kind of programs.

Q55. 1. Draw a neat diagram of human brain and 5

2. Label Medulla and Cerebellum

3. Write the functions of the above mentioned parts

4. ''Both overproduction and underproduction of Growth hormone leads to disorders In the body. '' Explain.

Q56. a) ''improvements in our lifestyle have resulted in greater amounts of waste generation.'' Give two examples to support the given statement. Suggest one change that we can Incorporate in our lifestyle in order to reduce non-biodegradable waste. 5

b) The following organisms form a food chain. Insect, Hawk, Grass, snake, Frog Which of these will have highest concentration of non-biodegradable chemicals? Name The phenomenon.

Q57. (1) What do you understand by ''watershed management''? list any two advantages of Watershed management. 5

(2) ''human beings occupy the top level in any food chain. '' what are the consequences of This on our body?

Q58. A student observed a permanent slide showing asexual reproduction in yeast. Draw Diagrams of the observations he must have made from the slide. Name the process also. 2

Q59. List two functions performed by testis in human beings. 1

Q60. a) Distinguish between renewable and non-renewable sources of energy.

b) Choose the renewable sources of energy-:

Coal, Bio –gas, sun and Natural Gas 3

Q61. Name the hormone secreted by thyroid gland. Write its function. Why the use of iodised Salt is advisable to us? 3

Q62. What are stomata? Give two functions of stomata. 3

Q63. In a colony it was decided to remove a green park and construct an air conditioned Shopping mall. Children of the colony took out a march against this decision shopping mall. Children of the colony took out a march against this decision with several placards to make the colony people aware of the importance of green plants. 3

(a) What are the ill effects of air conditioning?

(b) Design two placards which the children would have carried.

(c) Is this action taken by the children justified?

Q64. a) Write the functions of the following in human female reproductive system :- Ovary, Oviduct, Uterus. 5

b) How does the embryo get nourishment inside the mother's body? Explain in brief.

Q65. What are sexually transmitted diseases? Give two examples of each disease caused due to To- 5

i) Bacterial infection ii) viral infection

Which device or devices may be used to prevent the spread of such diseases?

b) What are the advantages may be used to prevent the spread of such diseases?

Q66. Write two precautions to be taken while identifying different parts of an embryo of a Dicot seed. 2

Q67. Differentiate between analogous and homologous organs. 2

Q68. What are the differences between the transport of materials in xylem and phloem? 3

Q69. Explain the mechanism of photosynthesis. 3

Q70. Is it possible that a trait is inherited but may not be expressed. Give a suitable example to Justify this statement. 3

Q71. Describe any three methods of tracing evolutionary relationship among organisms. 3

Q72. Out of the following food chains A,B and C which one has the minimum number of trophic Levels? If in each food chain, the same amount of energy is available to the plants, in Which case will the organism at top of the food chain get minimum energy for survival? 3

Q73. Name various plant hormones. Also give their physiological effects on plant growth and Development. 5

Q74. (i) What is reproduction? Explain two advantages of sexual reproduction over asexual Reproduction. 5

(ii) Describe the process of regeneration in planaria. Explain how this process is different From reproduction.

Q75. A student has set up an apparatus to perform an experiment to show that CO_2 is released During respiration. After about 1 hour he observes no rise in water level in the delivery Tube list two possible reasons for the failure of the experiment. 2

Q76. A student carefully observed and reported that binary fission process is taking place in a Unicellular organism after examining a slide under microscope. List two observations on the basis of which he might have drawn the conclusion about the slide. 2

Q77. Name the basic filteration unit of human kidney. 1

Q78. i) Why human heart has 4 chambers? 2
ii) Why ventricles have thick walls than atria?

Q79. What are tropic movements? With the help of suitable examples explain phototropism And geotropism. 3

Q80. Some plants do not produce seeds. For such plants, parts like roots, stem and leaves are Used to develop into new plants. 3
i) Identify the process.
ii) Which type of reproduction is it-sexual or asexual? Answer with reason.
iii) Give any two examples of plants which are grown by this process.

Q81. i) How is human brain protected?
ii) Name the part of the brain which controls the following:
a) Walking in a straight line..
b) Moving a chair.

Q82. i) Deficiency of which hormone causes dwarfism. 5
ii) Name the endocrine gland which secretes adrenaline.
iii) Why the use of iodised salt is advisable?
iv) Doctor advised your friend pankaj to take less sugar in diet. Which disease is pankaj? suffering from? What is its treatment?

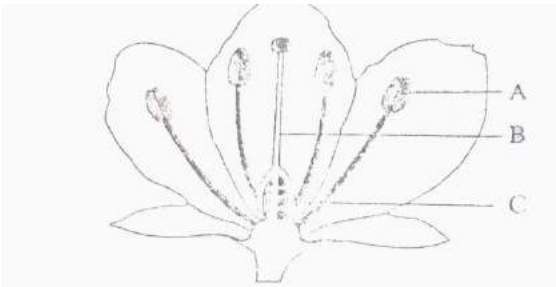
Q83. Draw a diagram of human alimentary canal and label the following on it: 5
Liver, gall bladder, stomach, pancreas.
Mention functions of liver and stomach.

Q84. In the experiment to show 'CO_2 is released during respiration', partial vacuum is Generated in the conical flask containing germinating seeds explain why? 2

Q85. The depletion of ozone layer is a cause of concern. Why? 1

Q86. How do organisms, whether reproduced asexually maintain a constant chromosomal Number through several generations? Explain with the help of suitable example. 3

Q87. Name the parts A, B and C shown in the following diagram and state one function of each. 3



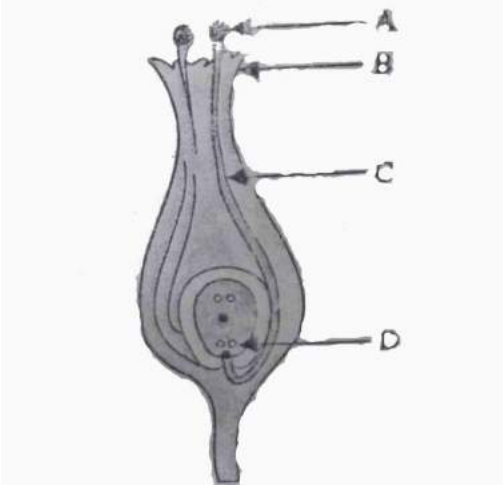
Q88. What is ozone? How and where is it formed in the atmosphere? Explain how does it Affect the ecosystem. 3

Q89. What are stomata? Draw a labelled diagram of stomata. Write two functions of Stomata. 3

Q90. What is reflex action? Describe the steps involved in a reflex action. 3

Q91. What would be the consequences of the deficiency of haemoglobin in our body? 3

Q92. (a) Identify A, B, C and D in the given diagram and write their names. 5



(b) What is pollination? Explain its significance.

(c) Explain the process of fertilisation in flowers. Name the parts of the flower that Develop after fertilisation into

(i) Seed (ii) fruit

Q93. (a) Draw a diagram of the human respiratory system and label on it alveolar sac,

(b) How are the lunge designed in human beings to maximize the area of exchange of Gases? 5

Q94. Given below are the steps in the preparation of a temporary mount of a stained leaf peel.

(i) Cover the material with the cover slip. 2

(ii) Transfer the stained peel to the clean glass slide and add a drop of glycerine.

(iii) Remove the peel from the lower surface of the leaf.

(iv) Drop it in the water in a petri dish and add a drop of Safranin stain.

Arrange the steps in correct sequence.

Q95. A leaf from a destarched plant is covered with black paper strip as shown in figure I. the Starch test is done on the leaf after 8 hours of exposure to light. Name the chemical used For starch test. Why did the leaf turn white in covered portion? 2

Q96. In which plane does Amoeba divide? How is it different from division in Leishmania and Plasmodium? 2

Q97. What is the similarity amongst Analogues organs due to? Amongst the following form Pairs of anologues Organs: Bat's wings, Horse's foot, Cat's forelimbs, bird's wings, Butterfly Wings, and Bat's Forelimbs. 2

Q98. Why is seed soaked overnight, before you can study its structure? Draw a labeled diagram of the structures you see? 2

Q99. What will happen if we kill all the organisms in one trophic level? 1

Q100. Why did united Nations Act to control the production of chloroflouro carbons used in

Refrigerators? 1

Q101. What are homologous organs? Give one example of these types of organs. 2

Q102. List any three advantage of water harvesting over water stored in ponds. 3

Q103. (a) Name the scientist who gave the idea of evolution of species. 3
(b) What conclusion did Mendel draw from his experiments about traits?
(c) Arrange the following according to evolution: cockroach, mango tree, gorilla, fish

Q104. Draw a neat diagram of germination of pollen on stigma. 3

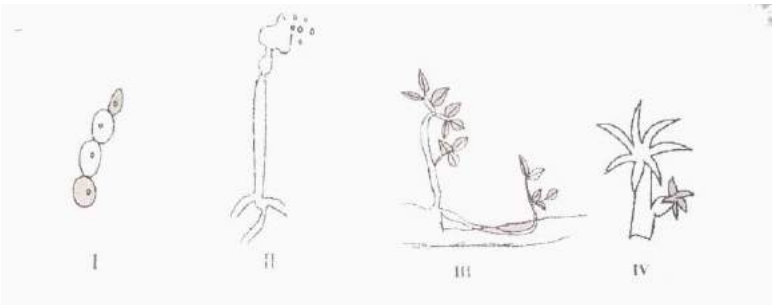
Q105. a) How will you differentiate between male germ cell and female germ cell? 3
b) Mention the role of prostate gland and seminal vesicles in the human male Reproductive system.

Q106. a) What is menstruation? Explain why it occurs? 5
b) Explain the different types of contraceptive methods practiced?

Q107. (i) Make a monohybrid cross to show the F1 and F2 generation formed by crossing two Two plants with trait for pink flowers (PP) and white flowers (pp). 5
(ii) What is the ratio of pink flowers and white flower in F2 generation?
What is speciation? List three factors which could lead to speciation?

Q108. A student is asked to study the different part of an embryo of a dicot seed. Select from The following an appropriate group of seeds: 1
i. Pea, gram, wheat.
ii. Red kidney bean, maize, gram.
iii. Wheat, red kidney bean, maize.
iv. Red kidney bean, pea, gram.

Q109. Two of the following four figures the illustrate budding are : 1



(a) I and II (b) I and III (c) I and IV (d) II and IV

Q110. What type of reaction is represented by the digestion of food in our body? 1

Q111. Name the major fuel component of bio gas. What are it's other combustible Compounds? 1

Q112. What is biological magnification will the levels of this magnification be different levels of The ecosystem? 2

Q113. Write one function of each of the following components of the transport system
(a) Blood vessels (b) blood platelets (c) lymph. 3

Q114. Leaves of a healthy potted plant were coated with Vaseline to block the stomata. Will this Plant remain healthy for long? State three reasons for your answer. 3

Q115. What is the function of receptors in our body think any two situation where receptors do Not work properly. What problem are likely to arise? 3

Q116. (a) Write any two differences between enzyme and hormone 3
(b) Name the hormone which is responsible for the changes noticed in males at puberty

Q117. Mention any three methods of disposal of waste. 3

Q118. (a) Draw the structure of nephron and label the following. 5
(i) Glomerulus (ii) bowman's capsule (iii) renal artery (iv) collecting duct.
(b) What happens to glucose, that enters nephron along with the filtrate?

Q119. What are the various type of heterotrophic nutrition? Give an example of each. 5

Q120. (a) Name the hormone which is released into the blood when it's sugar level rises. 5
(b) Name the organ which produces this hormone and its effect on the blood sugar level.
(c) Also mention the digestive enzymes secreted by this organ with one function of each.

Q121. Mention any two factors which influence the opening of stomata. 2

Q122. The selection of germinating seeds is done to demonstrate respiration. 2

Q123. Name the respiratory pigment in human blood. Where is it present? 1

Q124. Explain transport of food and other substances in plants. 2

Q125. Anita's father has been advised by a doctor to reduce sugar intake. 3
(i) Name the disease he is suffering from and name the hormone which is deficient?
(ii) Identify the gland that secretes It and mention the function of this hormone.
(iii) Explain how the time and amount of secretion of this hormone is regulated in human System.

Q126. Explain the process of urine formation. 3

Q127. (a) Draw a labelled diagram of the sectional view of human heart.
(b) Give reasons for the following observations:-
(i) The wall of the left ventricle is thicker than that of right ventricle.
(ii) Herbivores have longer small intestine as compared to carnivores. 5

Q128. What is the shape of guard cells? In a dicot plant, which surface of the leaf has more Number of stomata? 2

Q129. Name the system responsible for transportation of materials in human being. 1

Q130. What is the function of pancreatic juice? 1

Q131. During respiration pyruvic acid is produced as end product of glycolysis. State the and Product formed from it on further breakdown in each of the following cases:- 3
(a) Yeast in absence of oxygen.
(b) Lack of oxygen in muscles.
(c) Presence of oxygen in mitochondria.

Q132. a) How do we detect the smell of an agarbatti (incense stick)? 3
b) What is the difference between a reflex action and walking?

Q133. Given one example each of a plant hormone that:
a) Promotes cell division. (b) Promotes cell elongation. (c) causes wilting of leaves. 3

Q134. If you keep the pothed plant horizontally for 2-3 days, what type of movement would be Exhibited by the shoot and root after two or three days? Explain it with diagram. 3

Q135. a) Bile juice do not contain any enzyme but is essential for digestion why? 5
b) Draw a neat labelled diagram of alimentary canal and label the following parts:
i) The largest gland.
ii) The gland that secretes digestive enzymes as well as hormones.
iii) The part where digested food is absorbed.

Q136. a) Name the phenomenon in which non-biodegradable chemicals get accumulated Progressively at each trophic level of a food chain. 5
b) What is meant by food chain? The number of trophic levels in a food chain limited?

Give reason to justify the statement. Give one example of the common food chain of Pond ecosystem.

Q137. a) Why do we generally take epidermal peel from the lower surface of the leaf? 1
b) What is the function of guard cells in stomata? 1

Q138. How does the use of KOH helps to show the CO_2 is released during respiration? 2

Q139. Tooth enamel is the hardest substance in our body:- 3
a) Name the compound it is made up of.
b) At what ph of the mouth does it gets corroded?
c) State the role of bacteria in the mouth. Suggest a method to prevent tooth decay.

Q140. What is the importance of DNA copying in reproduction? 3

Q141. What are photohormones? Give their functions. Name a few examples of plant Harmones? 3

Q142. Justify the statement that respiration is opposite to photo syn thesis? 2

Q143. We suddenly withdraw our hand when a pinpricks. Name the type of response Involved in this action. 1

Q144. Name the hormone responsible for regulation of 1
(a) Metabolism of carbohydrates, fats and proteins
(b) Balance of calcium and phosphate

Q145. Which pancreatic enzyme is effective in digestion of proteins? 1

Q146. If you insert a thermometer in a sealed beaker containing germinating seeds. The Temperature of thermometer increases. Why? 1

Q147. Give reason to justify the following: 2
The existence of decomposers is essential in a biosphere.

Q148. Why is government of India imposing a ban on the use of polythene bags? 2
Suggest two alternatives to these bags and explain how this ban is likely to improve the environment.

Q149. Draw a diagram of a palisade cell of a plant leaf and label the following with it. 3
(i) Chloroplast (ii) Vacuole (iii) cytoplasm (iv) nucleus

Q150. Name the harmone secreted by thyroid. Write its function what is the use of iodised Salt advisable to us. 3

Q151. Write one function of the following components of the transport system in human Beings. 3
(a) Blood vessels
(b) Blood platelets
(c) Heart

Q152. How is ozone formed in the upper atmosphere? Why is damage to ozone layer a cause Of concern to us? What causes this damage?

Q153. (a) Draw the structure of a nephron and label the following on it. 5
Glomerulus, Bowman's capsule, renal artery, collecting duct
(b) What happens to glucose that enters the nephron along with the filtrate?

Q154. Write any two disadvantages of constructing dams. 1

Q155. Name the component of blood which transports 1
(i) Carbon dioxide and nitrogenous waste
(ii) Oxygen

Q156. Suggest three ways to maintain a balance between environment and development. 3

Q157. Mention the use of the slurry left behind in the digester of a bio- gas plant. how does a Bio gas plant help in reducing pollution? 3

Q158. Explain ''biological magnification'' with the help of example. 3

Q159. Write three differences between biodegradable and non-biodegradable wastes. 3

Q160. Give reason for the following:- 3

(i) Arteries have thick elastic walls.

(ii) Veins have valves.

(iii) Veins have thin walls.

Q161. What is reflex action? What is reflex arc? What happens if we accidently touch a hot Utensil? 5

Q162. What are hormones? Write any four features of hormones? Write the functions of Following hormones in plants: 5

(i) Auxins (ii) Abscisic Acid

Q163. Define respiration and write the chemical equation for the respiration. 2

Q164. Name growth inhibitor plant hormone. 1

Q165. Define the term parasite. Name one plant parasite and one animal parasite. Some Organisms break down the food material outside the body and then absorb it. Give two examples of such organisms. 3

Q166. (a) How do auxins promote the growth of a tendril around a support?

(b) Name the sense organ where gustatory receptors and olfactory receptors are located In human body. 3

Q167. Explain what happens when: 3

(a) Accidently planaria gets cut into three pieces.

(b) Bryophyllum leaf falls on the wet soil.

(c) Eggs fuses with sperm cell.

Q168. (a) Draw diagram of human alimentary canal and label the following: 5

(i) Organ in which bile is stored.

(ii) The gland that secretes digestive enzymes as well as hormones.

(iii) Part of alimentary canal where water is reabsorbed.

(iv) Part of gut where finger like projections are present to facilitate absorption of digested food.

(v) What are the methods used by plants to get rid of excretory products?

Q169. (a) Name the human male reproductive organ that produces sperms and also secrets a Hormone. Write the function of the secreted hormone. 5

(b) Name the parts of the human female reproductive system where:

(i) Fertilisation takes place

(ii) Implantation of the fertilised egg occur.

Q170. What precautions are necessary for making amount of leaf peel? 2

Q171. Why are germinating seeds taken in the experiment? What would happen if germinating Seeds are replaced by boiled seeds? 2

Q172. Give reasons: 3

(a) Use of iodized salt advisable.

(b) Some patients of diabetes treated by giving injections of insulin.

(c) Pituitary gland master gland.

(d) Pancreas perform dual function.

(e) Adrenaline is an emergency hormone.

(f) Hormones are called as 'Chemical messenger'

Q173. Differentiate between 1

(a) Genetic drift and Natural selection.

Q174. A blue coloured flower plant denoted by BB in cross breed with white colour flower Denoted by bb. 3

(a) Sate colour in F_1 generation.

(b) What must be percentage of white flower plans in F_2 generation if flower of F_1 plants Are self-pollinated?

(c) State the expected ratio of genotype BB and Bb in the F_2 Progeny.

Q175. Explain law of dominance with the help of Mendel's monohybrid cross. 3

Q176. Why was the temporary mount of leaf peel pinkish red under the microscope. 2

Q177. What are the components of the transport system in highly organized plant? 1

Q178. What is the reason that some substances are biodegradable and some non-Biodegradable? 2

Q179. What is biological magnification? Will the levels of this magnification be different at Different levels of the ecosystem? 2

Q180. (a) what advantage over an aquatic organism does a terrestrial organism have with Regard to obtaining oxygen for respiration? 3

(b) Which pigment helps the transportation of oxygen and carbondioxide in human Beings?

Q181. (a) How are involuntary actions and reflex actions different from each other? (Only two differences) 5

(b) What is the role of the brain in reflex action?

Q182. (a) How do the guard cells regulate opening and closing of stomatal pores? 5

Q183. Write a chemical equation for photosynthesis in plants. 1

Q184. What is emulsification? How is it useful for digestion of fat? 2

Q185. (a) Prakash has met with an accident after which he has lost the capacity to walk in a Straight line. Which part of his brain has damaged? 3

(b) Define synapse.

(c) How does information travel across the synapse?

Q186. (a) Draw a diagram of human excretory system and label the following par. 5
Kidney, Ureter, urinary bladder, urethra.

(b) What are the two important functions of nephrons?

Q187. (a) Draw a diagram to show human respiratory system and label the following parts: 3
Lungs, pharynx, alveoli, bronchi.

Q188. (a) Name the part of the human respiratory system

(i) In which air is filtered by fine hair and mucus. 5

(ii) Which terminates in a balloon like structure.

(b) What are the three pathways in which glucose is oxidised to provide energy in various Organisms?

(c) Name the respiratory pigment present in human blood which binds with oxygen?

Q189. (a) write the functions of the following in the human female reproductive system 5

(i) Ovary

(ii) Oviduct

(iii) Uterus

(b) Describe in brief the structure and function of placenta.

Q190. A student observed a permanent slide showing asexual reproduction in yeast. Name the Process and draw diagrams to show the observations he must have made from the slide. 2

Q191. What is damage to the ozone layer a cause for concern? What steps are being taken to Limit this damage? 2

Q192. What are the problems caused by the non-biodegradable wastes that we generate? (any tow) 2

Q193. Why are we looking at alternate sources of energy? 3

Q194. How are the lungs designed in human beings to maximize the area for exchange of gases? 3

Q195. Draw the structure of a neuron and explain its function. 3

Q196. Describe double circulation in human beings. Why is it necessary? 3

Q197. (a) How does phototropism occur in plants? 5

(b) What is the difference between the manner in which movement takes place in a Sensitive plant and the movement in our legs? (Any two)

Give an example of a plant hormone that promotes growth.

Q198. (a) Mention the major events or steps during photosynthesis. 2

Q199. List the step of preparation of temporary mount of a leaf peel to observe stomata. 2

Q200. A Mendelian experiment consisted of breeding pea plants bearing violet flowers with Pea plants bearing white flowers. What will be the result in F_1 Progeny? 1

Q201. Name the hormones secreted by the following endocrine gland and specify one function of each: 3

(a) Thyroid (b) Pituitary (c) pancreas

Q202. Write one main difference between asexual and sexual mode of reproduction. Which Species is likely to have comparatively better chances of survival-the one reproducing Asexually or the one reproducing sexually? Give reason to justify your answer. 3

Q203. Students in a school listened to the news read in the morning assembly that the mountain Of garbage in Delhi, suddenly exploded and various vehicles got buried under it. Several People were also injured and there was traffic jam all around. In the brain storming Session to the teacher also discussed this issue and asked the students to find out a Solution to the problem of garbage. Finally they arrived at two main points – one is self Management of the garbage we produce and the second is to generate less garbage at individual level. 3

(a) Suggest two measures to manage the garbage we produce.

(b) As an individual what can we do to generate the least garbage? Give two points.

(c) List two values the teacher instilled in his students in this episode.

Q204. What is a dam? Why do we seek to build large dams? While building large dams, Which three main problems should particularly be addressed to maintain peace among Local people? Mention them. 3

Q205. (a) Mention any two components of blood. 5

(b) Trace the movement of oxygenated blood in the body.

(c) Write the function of valves present in between atria and ventricles.

(d) Write one structural difference between the composition of artery and veins.

Q206. (a) Define excretion. 5

(b) Name the basic filtration unit present in the kidney.

(c) Draw excretory system in human beings and label the followings organs of excretory System which perform following functions:

(i) Form urine.

(ii) Is a long tube which collects urine from kidney.

(iii) Store urine until it is passes out.