



- 1) Which organs of man that are homologous to the limbs of birds?
- 2) Mention any two recessive traits of garden pea.
- 3) What is genetic drift?
- 4) Name an organism in which sex determination is regulated by environmental factors.
- 5) What is speciation?
- 6) Name the information source for making protein in the cells.
- 7) What is a gene?
- 8) State 10% law of energy flow.
- 9) Give an example of a natural and non – made ecosystem.
- 10) List two components of ecosystem.
- 11) What are the two things moving through an ecosystem?
- 12) Which is the ultimate source of energy?
- 13) Why are bacteria and fungi called decomposers?
- 14) Consider the following food chain which occurs in a forest.  
Grass → Deer → Lion  
If 10000 of solar energy is available to the grass how much energy would be available to the deer to transfer it to the lion?
- 15) Which group of chemical is linked to the decrease in the amount of ozone in the upper atmosphere of the earth?
- 16) Why are crop fields known as artificial ecosystem?
- 17) What is the function of ozone at the higher level of atmosphere?
- 18) Define the term ‘conservation of environment’.
- 19) Name a programme which was started to avoid alienation of common man from trees.  
Who started it?
- 20) Name two inexhaustible sources.
- 21) Name two resources which cannot be recycled.
- 22) How can level of water pollution be measured? List any two ways.
- 23) Name two resources which cannot be recycled.
- 24) List two industries which are dependent on forest for raw materials.
- 25) List two measures that would suggest for the better management of water resources.
- 26) Give one example each from your daily life where the household waste can be effectively reused and recycled respectively.
- 27) What are coli form bacteria?
- 28) Name two indigenous water saving methods.
- 29) List two advantages of building dams.
- 30) State two changes you can make in your habits to reduce the consumption of electricity or water.
- 31) The longest part of the alimentary canal.
- 32) Which is the extensively coiled part of the alimentary canal?
- 33) What is the function of bile salt?
- 34) What is the function of lipase?
- 35) Name the enzymes which are present in the pancreatic juice.
- 36) Where does the intestinal juice secrete?
- 37) What is villi? Where is it located?

- 38) What is the function of Villi?
- 39) What is the function of large intestine?
- 40) What is the main function of small intestine?
- 41) What is the role of sphincter muscle?
- 42) What is life process?
- 43) Why do we need energy?
- 44) What are autotrophs?
- 45) What are enzymes?
- 46) In what form the energy is stored in our body?
- 47) Write the equation for photosynthesis.
- 48) What are the functions of stomata?
- 49) Name the essential elements used in the synthesis of proteins and other compounds.
- 50) Give two examples for Saprophytes.
- 51) Name the parasitic plant.
- 52) Name two ectoparasites.
- 53) Name two endo parasites.
- 54) Name the organism which derives nutrition from plants or animals without killing them.
- 55) How do the single celled organisms take their food?
- 56) How do paramecium take its food?
- 57) Name the enzyme which is present in saliva.
- 58) What is the role of Salivary amylase?
- 59) Name the muscular organ which helps to mix the food thoroughly with Saliva.
- 60) Where do peristaltic movement occurs?
- 61) Name the large organ of the alimentary canal which expands when the food enters in it.
- 62) What is the role of HCL in our stomach?
- 63) What is the role of mucus?
- 64) Name the energy currency of the cell.
- 65) Name the process in which CO<sub>2</sub> and O<sub>2</sub> are exchanged.
- 66) What is the role of rings of cartilage in the throat?
- 67) Where does exchange of gases take place?
- 68) Name the respiratory pigment in human being.
- 69) Name the process which is takes place in yeast during fermentation.
- 70) “ The rate of breathing in aquatic organisms is much faster than in terrestrial organisms’ Justify.
- 71) What is the role of ATP in the cells?
- 72) Name the instrument which helps to measure blood pressure.
- 73) Name the chambers which are receives deoxygenated and oxygenated blood.
- 74) Where does oxygenation of blood takes place?
- 75) Name the pumping chambers of the heart.
- 76) What is the role of valve in the heart?
- 77) Why is the right side and left side of the heart separated?
- 78) How many chambered heart do the amphibians and fishes have?
- 79) What is double circulation?
- 80) What is the cause of blood pressure?

- 81) What is systolic and diastolic pressure?
- 82) How much is the normal BP of Human?
- 83) Name the smallest blood vessel.
- 84) Mention any two differences between artery and vein.
- 85) Name the component of blood which helps in blood clotting.
- 86) Write any two differences between blood and lymph.
- 87) What is the role of lymph?
- 88) Why do plants have low energy needs than animal?
- 89) Name the plant tissues which are transport food, water and minerals.
- 90) What are the advantages of transpiration?
- 91) What is translocation?
- 92) What is excretion?
- 93) Name the nitrogenous waste which is removed from blood in the kidneys of human beings.
- 94) Name the filtration units of kidney.
- 95) What are the substances present in the initial filtrate by nephron in the kidney of Human being?
- 96) Name the device to remove nitrogenous waste products from the blood through dialysis.
- 97) Where do the waste products store in plants?
- 98) Name the specialized tissues which are used to provide control and co-ordination (or) The structural and functional unit of nervous system.
- 99) Where are receptors located?
- 100) Name the receptors which are detect taste and smell.
- 101) What is reflex action?
- 102) Why are reflex arcs have evolved in animals?
- 103) Name the main coordinating centre of the body.
- 104) What are the two constitutes of the central nervous system?
- 105) What is the function of peripheral nervous system?
- 106) Name the nerves which are emerges from brain and spinalcord.
- 107) Name the three major parts or regions of the brain.
- 108) Name the main thinking part of the brain. Why?
- 109) How do we know that we have eaten enough?
- 110) What are the functions of cerebellum?
- 111) What are the functions of medulla oblongata?
- 112) Name the emergency hormone.
- 113) Name the bone which protects the spinal cord.
- 114) How are brain tissue protected?
- 115) Give one example of chemotropism.
- 116) Where is auxin synthesized?
- 117) How do auxin helps the cells to grow longer?
- 118) Name the hormones which helps in the growth of the stem and promote cell division.
- 119) How do hormone carried to different parts of the body.
- 120) Why is it important to have iodised salt in our diet?
- 121) What is the function of thyroxin hormone?
- 122) Name two hormones which are associated with puberty of males and females.

- 123) Name the hormone which is produced by pancreas and what is the role of it?
- 124) Why is it important that the hormones should be secreted in precise quantities?
- 125) What is feed back mechanism? Give an example.
- 126) Give any four methods of a sexual reproduction.
- 127) Name the protozoan which causes kala – azar.
- 128) Name the methods in which plasmodium and yeast reproduce.
- 129) 'Regeneration is not the method of reproduction'. Why?
- 130) How is the reproduction to be achieved from a single cell type, if the organism itself consists of many cell types?
- 131) Write any two advantages of vegetative propagation.
- 132) What is vegetative propagation?
- 133) Name the leaf which produce notches in the margin to develop into a new plants.
- 134) Name the technique which is commonly used for growing ornamental plants.
- 135) Name the method in which Rhizopus (or) Bread mould reproduce.
- 136) What is a sexual reproduction?
- 137) What is the basic event in reproduction?
- 138) Name the two types of germ cells.
- 139) Name the germ cell which is large and contains the stored food.
- 140) Name the smaller motile germ cell.
- 141) Name the male and female gametes.
- 142) Name the reproductive parts of Angiosperms.
- 143) Name the reproductive parts of a flower.
- 144) What are the functions of sepals and petals?
- 145) Give an example for unisexual and bisexual flower.
- 146) What is bisexual flower?
- 147) Which is the male reproductive part of the flower?
- 148) Which is the female reproductive part of the flower?
- 149) Name the part / organ which is located at the centre of a flower and what do you call it?
- 150) Name the swollen bottom part of the carpel.
- 151) Male germ cell of the flower is produced by \_\_\_\_\_
- 152) What is fertilization?
- 153) What is pollination?
- 154) Write one difference between self – pollination and cross pollination.
- 155) What are the agents for cross pollination?
- 156) What will happen to the parts of a flower after fertilization?
- 157) What is known as germination?
- 158) What is the function of testes? Where is it located?
- 159) What is the function of testosterone?
- 160) Name the common passage for both the sperm and urine.
- 161) Mention the role of fluid which is secreted by seminal vesicle and prostate gland.
- 162) What is sperm?
- 163) How many eggs are produced every month by one of the ovaries?
- 164) How does the egg carry from the ovary to the womb?
- 165) Name the mouth of the uterus.
- 166) How do uterus opens in to the vagina.

- 167) Where do the fertilized egg the zygote get implant?
- 168) What is placenta?
- 169) What are the function of ovary?
- 170) How do embryo gets nutrition from mother's blood?
- 171) Name two bacterial diseases which are caused by sexually transmitted.
- 172) Name two sexually transmitted disease.
- 173) What are the different methods of contraception?
- 174) What is puberty?
- 175) What is tissue culture?
- 176) Name the product and by product of photosynthesis.
- 177) In which biochemical form the photosynthate moves in phloem tissue?
- 178) What are the raw materials of photosynthesis?
- 179) What is the similarity between chlorophyll and hemoglobin?
- 180) Name the products of photolysis of water.
- 181) What are the end products of light dependant reaction?
- 182) Which cell organelle is the site of photosynthesis?
- 183) What is the difference between digestion of heterotrophs and saprotrophs?
- 184) Give example of two plants and two animal parasites.
- 185) Name the enzyme present in saliva, what is its role in digestion?
- 186) Which chemical is used to test for starch? Which colour shows the presence of starch?
- 187) Give the term- rhythmic contraction of alimentary canal muscle to propel food.
- 188) Name the three secretions of gastric glands.
- 189) What is the function of mucus in gastric gland?
- 190) Name the sphincter which regulates the exit of food from the stomach.
- 191) Give the functions of hydrochloric acid for the body.
- 192) What is the role of pepsin in stomach?
- 193) Why pancreas is called mixed gland?
- 194) Give two functions of bile juice, from which organ it is released?
- 195) Name the largest gland of our body.
- 196) Name any three important enzymes of pancreas and the food component on which they act.
- 197) Where from intestinal juice come to the small intestine?
- 198) What is the function of intestinal juice?
- 199) What are the simplest digestive product of carbohydrate, fats and protein?
- 200) Name the finger like projections of small intestine and what is the necessity of such type of projections in digestive system?
- 201) Why are intestinal villis highly vascular?
- 202) What is the function of anal sphincter?
- 203) Name the site of anaerobic and aerobic respiration in a cell.
- 204) A three carbon compound is the common product of both aerobic and anaerobic pathway. What is that?
- 205) Why do we get muscle cramp after vigorous exercise?
- 206) Distinguish between lactic acid and alcoholic fermentation?
- 207) Name the energy currency molecule of cell?
- 208) The breathing rate of aquatic animals is high, why?
- 209) What is the function of mucus and fine hair in nostrils?

- 210) Give the function of network of capillaries on alveoli.
- 211) Name the main carrier of oxygen and carbon dioxide in man.
- 212) Why does haemoglobin molecule act as efficient carrier of oxygen than diffusion process?
- 213) Give example of any three substances transported by plasma.
- 214) Name the organ that- (a) pushes blood around body (b) make blood to reach to tissues.
- 215) Name the blood vessel that carries blood from heart to lungs and from lungs to heart.
- 216) How many heart chambers are there in (a) fish (b) frog (c) lizard (d) crocodile (e) birds  
(f) man?
- 217) Name the device that measures blood pressure.
- 218) What is the normal blood pressure of man?
- 219) Why capillaries are thin walled?
- 220) Which cell of blood help in wound healing?
- 221) What is the other name of lymph?
- 222) Give two function of lymph.
- 223) What is the direction of flow of water in xylem and food in phloem?
- 224) Why do plants need less energy than animals?
- 225) Which process acts as suction to pull water from xylem cells of roots.
- 226) Mention two functions of transpiration.
- 227) What are the two substances transported through phloem tissue?
- 228) Name the food component whose digestion produce nitrogenous waste?
- 229) Which is the functional unit of kidney?
- 230) What is the cup shaped structure of nephron called?
- 231) Which materials are selectively reabsorbed by nephron tubule?
- 232) What are the two important functions of kidney.
- 233) What is the other name of artificial kidney?

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