CLASS 10 SCIENCE PREVIOUS YEAR QUESTIONS
LIFE PROCESSES

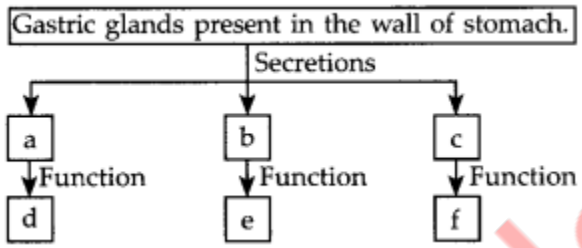
Question 1. Most of the digestion and absorption of the food takes place in the
(a) small intestine
(b) liver
(c) stomach
(d) large intestine. (2020)

Question 2. Mention the raw materials required for photosynthesis. (Board Term I, 2016)

Question 3. State the location and function of gastric glands. (Board Term I, 2014)

Question 4. Name the glands present in the wall of the stomach that release secretions for digestion of food. Write the three components of secretion that are released by these glands. (Board Term I, 2014)

Question 5. Complete the following flow chart as per the given instructions.



Question 6. (a) State the role played by the following in the process of digestion :
(i) Enzyme trypsin
(ii) Enzyme lipase-
(b) List two functions of finger-like projections present in the small intestine. (2020)

Question 7. Explain the significance of photosynthesis. Writd the balanced chemical equation involved in the process. (Board Term I, 2017)

Question 8. Differentiate between autotrophs and hetero- trophs and give one example of each. (Board Term 1,2017)

Question 9. Explain with the help of neat and well labelled diagrams the different steps involved in nutrition in Amoeba. (Board Term I, 2015)

Question 10. (a) What is peristaltic movement?
(b) 'Stomata remain closed in desert plants during daytime'. How do they do photosynthesis? (Board Term I, 2013)

Question 11. (a) Why is nutrition necessary for the human body?
(b) What causes movement of food inside the alimentary canal?
(c) Why is small intestine in herbivores longer than in carnivores?

(d) What will happen if mucus is not secreted by the gastric glands? (2020)

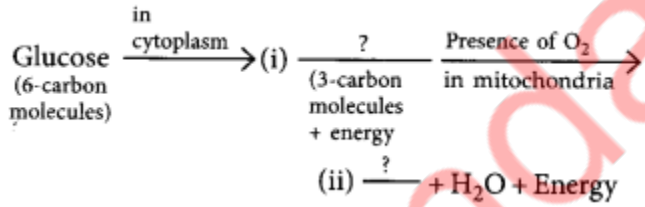
Question 12. (a) State the form in which the following are stored:
(i) Unused carbohydrates in plants.
(ii) The energy derived from food in humans,
(b) Describe the process of nutrition in Amoeba with the help of diagram. (Board Term I, 2016)

Question 13. Anaerobic process
(a) takes place in yeast during fermentation
(b) takes place in the presence of oxygen
(c) produces only energy in the muscles of human beings
(d) produces ethanol, oxygen and energy. (2020)

Question 14. Diffusion is insufficient to meet the oxygen requirement of multicellular organisms like human. State reason. (Board Term 1,2017)

Question 15. Write two different ways in which glucose is oxidised to provide energy in human body. Write the products formed in each case. (Delhi 2019)

Question 16. (a) In the process of respiration, state the function of alveoli.
(b) Rate of breathing in aquatic organisms is much faster than that in terrestrial organisms. Give reasons.
(c) Complete the following pathway showing the breakdown of glucose.



Question 17. Write three points of difference between breathing and respiration. (Board Term I, 2016)

Question 18. Draw a flow chart to show the breakdown of glucose by various pathways. (Board Term I, 2016)

Question 19. Write three points of difference between respiration in plants and respiration in animals. (Board Term I, 2014)

Question 20. (a) Why is there a difference in the rate of breathing between aquatic organisms and terrestrial organisms? Explain
(b) Draw a diagram of human respiratory system and label – pharynx, trachea, lungs, diaphragm and alveolar sac on it. (2020)

Question 21. (a) State reasons for the following:
(i) Herbivores need a longer small intestine while carnivores have shorter small intestine.
(ii) The lungs are designed in human beings to maximise the area for exchange of gases.
(b) The rate of breathing in aquatic organisms'is much faster than that seen in terrestrial

organisms. (Board Term 1,2016)

Question 22. Draw a flow chart showing the three different pathways involved in the breakdown of glucose in different organisms. Name the respiratory pigment present in human beings. State the function of rings of cartilage present in our throat. (Board Term I, 2015)

Question 23. (a) Draw a diagram of human respiratory system and label: Trachea, Bronchi and Diaphragm.
(b) Give reasons for the following:
(i) Lungs always contain residual volume.
(ii) Nostrils are lined with mucus. (Board Term I, 2013)

Question 24. Which one of the following statements is correct about the human circulatory system?
(a) Blood transports only oxygen and not carbon dioxide.
(b) Human heart has five chambers.
(c) Valves ensure that the blood does not flow backwards.
(d) Both oxygen – rich and oxygen – deficient blood gets mixed in the heart. (2020)

Question 25. Name the vein which brings blood to left atrium from lungs. (Board Term I, 2017)

Question 26. Define translocation in reference to plants. (Board Term I, 2016)

Question 27. Write three types of blood vessels. Give one important feature of each. (Delhi 2019)

Question 28. (a) Write two water conducting tissues present in plants. How does water enter continuously into the root xylem?
(b) Explain why plants have low energy needs as compared to animals. (AI 2019)

Question 29. Explain how the translocation of materials in phloem tissue in plants is achieved by utilising energy. (Board Term I, 2017)

Question 30. What do the following transport?
(i) Xylem
(ii) Phloem
(iii) Pulmonary vein
(iv) Vena cava
(v) Pulmonary artery
(vi) Aorta (Board Term I, 2014)

Question 31. Explain giving any three reasons the significance of transpiration in plants. (Board Term I, 2014)

Question 32. List in tabular form three differences between arteries and veins. (Board Term I, 2013)

Question 33. Give reasons:
(a) Ventricles have thicker muscular walls than atria.
(b) Transport system in plants is slow.
(c) Circulation of blood in aquatic vertebrates differs from that in terrestrial vertebrates.

(d) During the daytime, water and minerals travel faster through xylem as compared to the night.
(e) Veins have valves whereas arteries do not. (2020)

Question 34. (a) "Blood circulation in fishes is different from the blood circulation in human beings". Justify the statement.
(b) Describe "blood circulation" in human beings. (2020)

Question 35. (a) Mention any two components of blood.
(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. (2018)

Question 36. Draw a diagram of human excretory system and label kidneys, ureters on it. (Board Term I, 2017)

Question 37. Draw a neat diagram of excretory system of human beings and label on it:
(i) Left kidney
(ii) Urinary bladder. (Board Term I, 2016)
Answer:
Refer to answer 36.

Question 38. Describe the structure and function of nephron with the help of diagram. (Board Term I, 2014)

Question 39. (a) Name four types of metabolic wastes produced by humans.
(b) Name any two human excretory organs other than kidney. (Board Term I, 2013)

Question 40. (a) Name the organs that form the excretory system in human beings.
(b) Describe in brief how urine is produced in human body. (2020)

Question 41. (a) Define excretion.
(b) Name the basic filtration unit present in the kidney.
(c) Draw excretory system in human beings and label the following 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 passed out. (2018)

Question 42. (a) Draw a neat diagram of the human excretory system and label following parts:
(i) Urethra
(ii) Kidney
(iii) Ureter
(iv) Urinary bladder
(b) What are nephrons ? How is a nephron involved in the filtration of blood and formation of urine? (Board Term I, 2015)

Question 43. (a) Draw a well-labelled diagram of structural and functional unit of kidney.
(b) Explain the mechanism of the urine formation. (Board Term I, 2013)