

Dr. M.K.K. ARYA MODEL SCHOOL, MODEL TOWN, PANIPAT

CLASS – X

SUBJECT – BIOLOGY

HOLIDAYS HOMEWORK

ASSIGNMENT

1. List three differences between arteries and veins.
2. “Sweet tooth may lead to tooth decay”. Explain why? What is the role of tooth paste in preventing cavities?
3. Explain the process of aerobic respiration in mitochondria of a cell and anaerobic respiration in yeast and muscle with the help of word equations.
4. How is oxygen and carbon dioxide transported in human beings?
5. Define the term transpiration. List its two functions.
6. List in tabular form three distinguishing features between autotrophic nutrition and heterotrophic nutrition.
7. What is translocation? Why is it essential for plants?
8. Where do the substances in plants reach as a result of translocation?
9. List two functions of human heart. Why is double circulation necessary in the human body?
10. Write the function of the following in the alimentary canal
 - a. Saliva
 - b. HCl in stomach
 - c. Bile juice
 - d. Villi
 - e. Pancreatic juice
11. Explain why plants have low energy needs as compared to animals?
12. Explain where and how urine is produced?
13. Name the process and explain the type of nutrition found in green plants. List the raw materials required for this process. Give chemical equation for the mentioned process.
14. Write three events that occur during the process of photosynthesis.
15. Explain the process of double circulation with the help of a flow chart.
16. Why is there a difference in the rate of breathing between aquatic organisms and terrestrial organisms? Explain.
17. Draw a diagram of human respiratory system and label pharynx, trachea, lungs, diaphragm and alveolar sac on it.
18. List the steps of preparation of temporary mount of a leaf peel to observe stomata.
19. Draw a labeled diagram of the experimental set up for the study of liberation of carbon dioxide gas during respiration.
20. List two differences between ‘Holozoic nutrition’ and ‘Saprophytic nutrition’. Give two examples of each of these two types of nutrition.
21. Name the cellular organelles where the following processes occur
 - a. Photosynthesis
 - B. Cellular aerobic respiration
22. Explain the process of nutrition in amoeba.
23. What are the functions of gastric glands present in the wall of the stomach?
24. Why do veins have thin walls as compared to arteries?
25. Name the energy currency in living organisms. When and where is it produced?
26. Why is small intestine in herbivores longer than in carnivores?
27. How do the guard cells regulate opening and closing of stomatal pores?
28. Explain the process of breathing in human.
29. Mention any one point of difference between pepsin and trypsin.
30. Name a common nutrient that is absorbed in the wall of small intestine and reabsorbed by the kidney tubules.
31. Solve the assignment and write the answers in your notebook.

Project work

Make model of Human Digestive System/ Human Respiratory System, Structure of human heart/ Human Excretory System