Term 1 Revision worksheet

1. Look at the passage given below carefully and answer the following questions from (i) to (v). Photosynthesis is the process used by plants, algae and certain bacteria to turn sunlight, carbon dioxide (CO_2) and water into food (sugars) and oxygen. There are two types of photosynthetic processes: oxygenic photosynthesis and anoxygenic photosynthesis. They both follow very similar principles, but oxygenic photosynthesis is the most common and is seen in plants, algae and cyanobacteria.

(i) What is the name of the pigment that should be filled in the box 1?

(a) chloroplast
(b) chromophyll
(c) chlorophyll
(d) chromoplast
(ii) What is the thing that plants absorb through their roots and should be filled in box 2 to complete the picture?

(a) water
(b) mineral nutrients
(c) air
(d) chemicals
(iii) An appropriate entry for the box 3 shown in the figure is:

(a) oxygen
(b) air
(c) carbon dioxide
(d) nitrogen
(iv) Final outputs from the photosynthesis, to be filled in boxes 4 and 5, are:

(a) glucose and oxygen
(b) oxygen and glucose
(c) glucose and carbon dioxide
(d) energy and oxygen
(v) Overall, what is the energy conversion summary in the process of photosynthesis?

(a) Heat energy is converted into mechanical energy.
(b) Heat energy is converted into chemical energy.
(c) Light energy is converted into chemical energy.
(d) Light energy is converted into mechanical energy.
2. Where do plants get each of the raw materials required for photosynthesis?

3. Write two different ways in which glucose is oxidised to provide energy in human body. Write the products formed in each case.

4. Using only flowchart write the path of oxygen from nostrils to respiring tissue cell.

5. What is photosynthesis? Explain its mechanism.

6. What is the function of digestive enzymes? From where are they secreted?

7. What advantage over an aquatic organism does a terrestrial organism have with regards to obtaining oxygen for respiration?

8. How is oxygen and carbon dioxide transported in human beings?

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

10. Define the term transpiration. Design an experiment to demonstrate this process.

11. Describe the alimentary canal of human beings.

12. Describe the flow of blood in human heart with proper diagram.

13. How is food transported in plants?

14. Describe the structure and functioning of nephrons?

15. Draw excretory system in human beings and label the following organs of excretory system which perform the following functions: (a) forms urine. (b) is a long tube which collects urine from kidney. (c) Store urine until it is passed out.

16. Draw diagram of human respiratory system and label the following: (i) Organ that is surrounded by cartilaginous rings. (ii) Part through which air is taken in. (iii) Part which protect the lungs.

17. Draw a schematic representation of transport and exchange of oxygen and carbon dioxide during transportation of blood in human beings and label the following parts on it. Lung capillaries, Pulmonary artery to lungs, Aorta to body, pulmonary veins from lungs.

18. How is food and water transported in plants?

19. Differentiate:

A) Artery, Vein and Capillaries
B) Xylem and phloem
C) Photosynthesis, respiration and Transpiration in plants

20. Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structure and functioning?

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