



ÉCOLE GLOBALE

INTERNATIONAL GIRLS' SCHOOL

Dehradun

HOLIDAY HOMEWORK - CLASS IX A (Biology)

1 Which one of the following structures is not part of the alimentary canal?

(a) Duodenum (c) Liver (b) Mouth (d) Stomach:

2 Name two digestive glands.

3 What name is given to the muscular contraction which moves food along the alimentary canal?

4 What do digestive enzymes do to food?

5 What are the final digestion products of (a) protein, (b) fat, (c) starch?

6 How does chewing food help to speed up digestion?

7 Name the enzyme present in saliva and say what type of food it acts on.

8 Are the contents of the stomach (a) acid, (b) alkaline, (c) neutral? Explain your answer giving reasons.

9 What class of food is partially digested in the stomach?

10 What is the name of the enzyme in gastric juice?

11 What types of enzymes are produced by the pancreas?

12 Into which part of the alimentary canal does the pancreas secrete pancreatic juice?

13 What is the function of bile in digestion?

14 State three ways in which the absorbing surface of the small intestine is increased.

15 Into what body fluids do (a) glucose, (b) fatty acids, glycerol (c) amino acids pass?

16. Select the most appropriate words from the list below to complete the following paragraph:

A green plant can make all the substances it needs. It builds up carbohydrates by the process of In this process, it combines from the with from the to form The needed for this process comes from, which is absorbed by the in the of leaf cells. The waste product of the process is.....

soil, energy, oxygen, glucose, chloroplasts, mineral salts, cells, photosynthesis, air,

Respiration, sunlight, water, nitrogen, chlorophyll, carbon dioxide.

17. What gases will be taken in and given out by a green plant (a) in darkness, (b) in bright sunlight?

18. Is it possible for a plant to be photosynthesizing and respiring at the same time?

19. (a) What carbohydrates does a plant make from glucose?

(b) Which of these carbohydrates is transported round the plant?

(c) Which carbohydrate is the main storage substance?

20. (a) What additional substances does a plant need to make amino acids and proteins from glucose?

(b) Where do these substances come from?

21. What ions must a plant obtain from the soil in order to make (a) ATP, (b) chlorophyll?

22. Name an artificial fertiliser or fertilisers which farmers can use to increase the supply of nitrate, phosphate and potassium to their crops.

23. (a) How would you destarch the leaves of a potted plant?

(b) How would you check that the destarching had been effective?

24. A leaf is detached from a tree and tested with iodine. The leaf turns dark blue.

(a) What does this result tell you?

(b) Why is this result not sufficient to confirm that photosynthesis had taken place in the leaf?

25. State three main ways in which the body uses food.

26. Write down the words missing from the following paragraph:

Fats and carbohydrate both provide the body with, but fats can provide as much as carbohydrates. Excess fats can be stored in the body but carbohydrates must be changed into or before they can be stored. The main types of carbohydrates are, and Examples of foods rich in starch are and foods rich in fat are and

27. In what form is most carbohydrate taken in the normal diet?

28. Write down the words omitted from the following paragraph:

Proteins are made up of about 20 different One example of a plant product rich in protein is An animal product rich in protein is When a protein is digested, it is broken down into its constituent and these are later built up in the body to make new Excess proteins which are not used for making new cells or tissues are converted to which can be stored or used to provide

29. (a) Carbohydrates contain the elements, and

(b) Proteins contain these elements but also and

30. (a) Name the mineral elements needed by

(i) bones (ii) red blood cells (iii) the thyroid gland

(b) Which of these elements is

(i) Present in milk (b) lacking in milk?

31. State one benefit of including vegetable fibre (roughage) in the diet..

32. (a) Which vitamin helps to maintain resistance to infectious diseases?

(b) Name two foods which are a good source of this vitamin.

33. Roots have no chlorophyll and grow in darkness. So how do roots obtain their food?

34. Osmosis and transpiration both play a part in the movement of water through a plant. Which of these two processes makes the greater contribution to the movement of water up the trunk of a tree?

35. Draw a well labelled diagram of digestive system explaining the function of each digestive organ.