Exercise 6.2

(Questions 1 to 15 Carrying 1 Mark)

1. Which gas is released during photosynthesis?
2. When do desert plant take up carbon dioxide?
3. Where is protein digested?
4. What are autotrophs?
5. Name two organisms in which food material is broken down outside the body and absorbed.
6. State any one difference between autotrophic and heterotrophic nutrition. **[HOTS]**
7. Name the green dots like structures in some cells of a leaf observed by a student when viewed under a microscope. What is this colour due to? [*Delhi* 2010] [*NCERT*] [*NCERT* 2010]
8. Which is the food constituent that bile juice help to digest and absorb and in which part of the body?
9. In which colour of light photosynthesis takes place to minimum extent and why? **[HOTS]**
10. State the function of digistive enzymes. [*NCERT*] [*Delhi* 2016]
11. Which enzymes present in saliva breaks down starch?
12. What is the role of hydrochloric acid in our stomach? [*Delhi* 2016]
13. What is meant by saprotrophic nutrition?
14. Where does break down of the food material take place in fungi, like bread moulds, yeast and mushrooms? **[HOTS]**
15. What type of nutrition is used by cuscuta (amar-bel), ticks, lice, laeches? **[HOTS]**

(Questions 16 to 21 Carrying 2 Marks)

16. Give reason why multicellular organisms require special organs for exchange of gases between their body and their environment. [*Delhi* 2010] **[HOTS]**
17. What are final products of digestion of (*i*) Proteins, (*ii*) Carbohydrates. [*Delhi* 2011]
18. Where are fats digested and what are end products?
19. What is saliva? State its role in the digestion of food. [*Delhi* 2011]
20. Explain the process of nutrition in Amoeba. [*Delhi* 2011]
21. How do autotrophs obtain CO_2 and N_2 (raw materials) to make their food?

(Questions 22 to 24 Carrying 3 Marks)

22. How do paramecium take nutrition?
23. What are three steps taking place in photosynthesis?

24. In human alimentary canal, name the site of complete digestion of various components of food. Explain the process of digestion. [*Delhi* 2012]

(Questions 25 and 26 Carrying 5 Marks)

25. What are Dental Carries? How can we avoid them? [**HOTS**]

26. (*a*) Draw a diagram depicting human alimentary Canal and label on it: Gall bladder, liver and Pancreas. [*Delhi* 2016]

(*b*) State the role of liver and pancreas.

(*c*) Name the organs which performs the following function in humans.

(*i*) Absorption of digested food

(*ii*) Absorption of water

Exercise 6.3

(Questions 1 to 19 Carrying 1 Mark)

1. Give one reason why multicellular organism require special organs for exchange of gases between their body and their environment. [*Delhi* 2010]
2. State the basic difference between the process of respiration and photosynthesis. [*Delhi* 2010]
3. Name the intermediate and the end products of glucose breakdown on aerobic respiration. [*Delhi* 2010]
4. In the experiment 'light is essential for photosynthesis', why does the uncovered part of leaf turn blue black after putting in Iodine solution. [*Delhi* 2010] [**HOTS**]
5. What advantage over an aquatic organism does a terrestrial organism have with regard to obtaining oxygen for respiration?

   Or

   Why do aquatic animals breathe faster than the terrestrial animals?
6. Name two ways in which glucose is oxidised to provide energy in various organisms.
7. In which kind of respiration more energy is released?
8. Specify two conditions in which photorespiration may take place in green plants.
9. Respiration is vital process for all organisms. Explain.
10. Name the substance which is oxidised in the body during respiration.

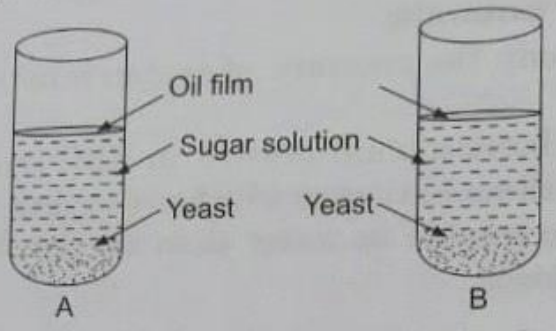
    Or

    Give one point which is common for both aerobic and anaerobic respiration.
11. Name the respiratory pigment of blood in mammals.
12. Name the fundamental process in which living organisms release energy within their cell cytoplasm.
13. What will happen if diaphragm present in lungs get ruptured during an accident? [**HOTS**]

14. Why do divers take oxygen for artificial respiration? [HOTS]
15. Name the ultimate end parts of respiratory passage in lungs of mammals.
16. In which part of body breakdown of pyruvate to give CO_2, H_2O and energy take place? [NCERT]
17. How much area will be covered if alveolar surface were spread out? [HOTS]
18. If haemoglobin is not present in body, how much time will it take for oxygen to reach from lungs to our toes? [HOTS]
19. Mention the raw materials required for photosynthesis. [*Delhi* 2014]

(Questions 20 to 27 Carrying 2 Marks)

20. How are alveoli designed to maximise the exchange of gases?
21. In a test tube A and B shown below, yeast was kept in sugar solution. What products of respiration would you expect in tubes A and B?



22. Give differences between respiration in plants and animals.
23. Give the overall reaction taking place in aerobic and anaerobic respiration .
24. How is carbon dioxide obtained by (*a*) aquatic plants and (*b*) terrestrial plants.
25. If one holds his breath after expiration for about 60 seconds, would there be still occurring any exchange of respiratory gases in the lungs during this period. Explain. [HOTS]
26. What are enzymes? Name any one enzyme of our digestive system and write its function. [*Delhi* 2015]
27. Why do herbivores have longer small intestine then carnivores? [*Delhi* 2014]

(Questions 28 to 33 Carrying 3 Marks)

28. Draw a digram of human respiratory system and label the following parts on it:
(*i*) Larynx, (*ii*) Trachea, (*iii*) Diaphragm
29. Describe an activity with diagram showing response of plant to the direction of light. [*Delhi* 2014, 2016]
30. State the role of the following in human digestive system: [*Delhi* 2016]
(*i*) Digestive enzyme, (*ii*) Hydrochloric acid, (*iii*) Villi
31. (*a*) How does exchange of respiratory gases and carbon dioxide take place between lungs and blood in human beings? [*Delhi* 2015, 16]
(*b*) Name the respiratory pigment in humans; where is it found?
32. In single celled organism diffusion is sufficient to meet all their requirements of food. exchange of gases or removal of wastes but it is not in case of multicellular organism. Explain the reason for this difference. [*Delhi* 2016]
33. Give four conditions required for efficient exchange of gases in an organism. [*Delhi* 2015]

OR

List three characteristics of lungs which makes it an efficient respiratory surface. [*Delhi* 2011]

[HOTS] [*Delhi* 2013]