

Standard - IX

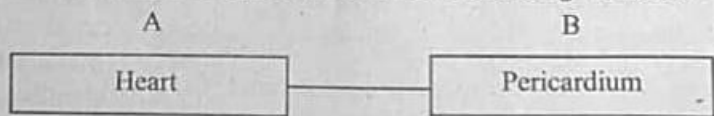
Time : 1½ Hours  
Score - 40

**Instructions**

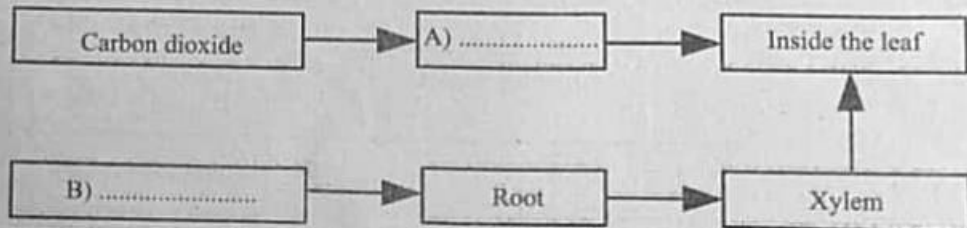
- First 15 minutes is cool off time. This time is to be used for reading and understanding the questions.
- Read the instructions carefully before writing the answers.
- While writing the answers, score and time should be considered.

Answer any 5 from questions 1 to 6. Each question carries 1 score. (5x1=5)

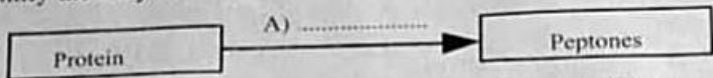
1. Choose the correct pairs related to the pigments in chloroplast, from those given below.
  - Chlorophyll a - accessory pigment
  - Chlorophyll b - accessory pigment
  - Chlorophyll a - participate directly in photosynthesis
  - Chlorophyll b - participate directly in photosynthesis
2. Which are the components in the digestive juices that destroy the germs which enter the digestive tract through food?
  - Lysozyme, Trypsin
  - Pepsin, Hydrochloric acid
  - Lysozyme, Hydrochloric acid
  - Pepsin, Trypsin
3. Make corrections if any in the underlined portion
  - a) Globulin regulates blood pressure.
  - b) Fibrinogen helps in the coagulation of blood.
  - c) Albumin helps in defence.
4. Write the relationship between A and B in the illustration given below.



5. Complete the illustration



6. Identify the enzyme 'A', related to the digestive process illustrated.



Answer any 6 from questions 7 to 13. Each question carries 2 score. (6x2=12)

7. Analyse the illustration related to photosynthesis and answer the questions.

- Oxygen is present in water and carbon dioxide.
- Oxygen is released as a result of photosynthesis.

- a) Which is the source of oxygen released?
- b) In which stage does this process take place?

8. Observe the illustration and answer the questions.



a) Identify the parts marked as X and Y.

b) What is the role of Y in the process of easy swallowing of food?

9. Analyse the statement and answer the questions.

"Based on the difference in the concentration of glucose in small intestine, the processes involved in the absorption of glucose to blood also differs".

a) Identify the absorption processes mentioned in the given situations.

- (i) When the concentration of glucose increases.
- (ii) When the concentration of glucose decreases.

b) Write the major difference between these processes.

10. Complete the table.

Valve	Position	Function
A .....	Between right atrium and right ventricle	Prevents the backward flow of blood from right ventricle to right atrium
B .....	Between left atrium and left ventricle	Prevents the backward flow of blood from left atrium to left ventricle
Pulmonary valve	C .....	D .....

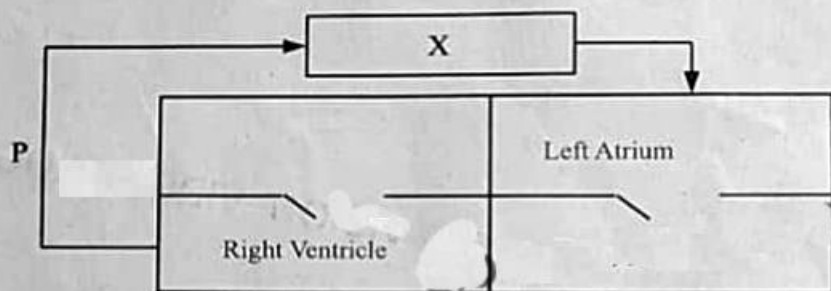
11. Analyse the hints given below and write the answers.

- I am a digestive juice.
- I don't have enzymes.
- I can make food alkaline.

- a) Which digestive juice is mentioned above? Name the gland which produces it.  
b) Write another function of this digestive juice.

12. "If indigestible fibres become part of the diet, it is advantageous for digestive system".  
Do you agree with this statement? Why?

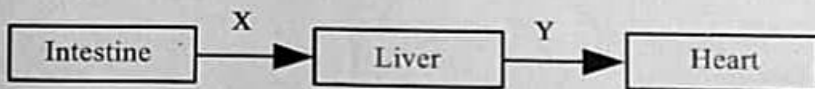
13. Observe the illustration and answer the questions



- a) Which is the blood circulation illustrated above?  
b) Identify the organ indicated as X and the blood vessel indicated as P.

Answer any 5 from questions 14 to 20. Each question carries 3 score. (5x3=15)

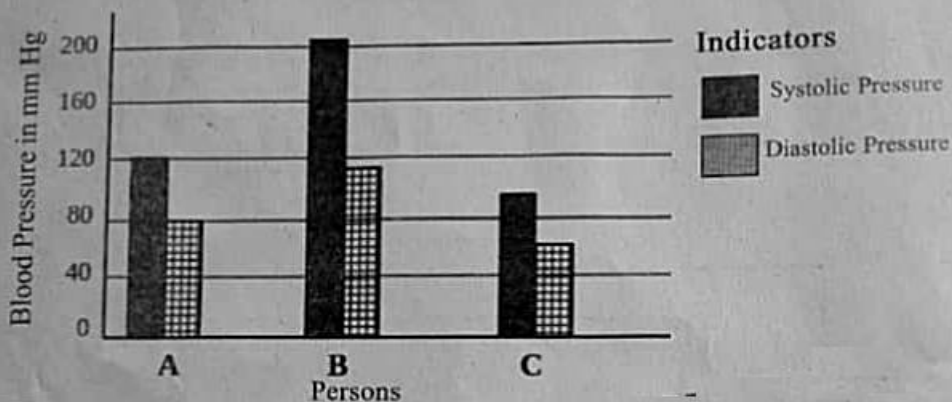
14. Analyse the illustration which shows how simple nutrients reach heart and answer the questions.



Hepatic vein, Pulmonary vein, Aorta, Hepatic portal vein, Pulmonary artery

- a) Which blood circulation is indicated in the illustration?  
b) Find out the blood vessels indicated as X and Y from the box given above?  
c) Why do simple nutrients absorbed from the small intestine pass through liver before reaching heart?

15. Blood pressure test result of three persons are represented in the graph. Analyse the graph and answer the questions.



- Which person has the desired rate of blood pressure ?
  - What are the disease conditions in other two persons ?
  - What are the health habits that should be practised to maintain the blood pressure rate at the desired level?
16. "Plants are the wealth of earth". Make a brief note on the basis of this slogan.

Hints

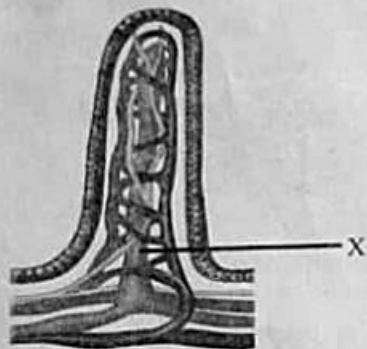
- Economic importance of plants.
- Mitigation of natural disasters.
- Ocean plants.

17. Analyse the statement and answer the questions.

"When rice is chewed without curries, it tastes slightly sweet."

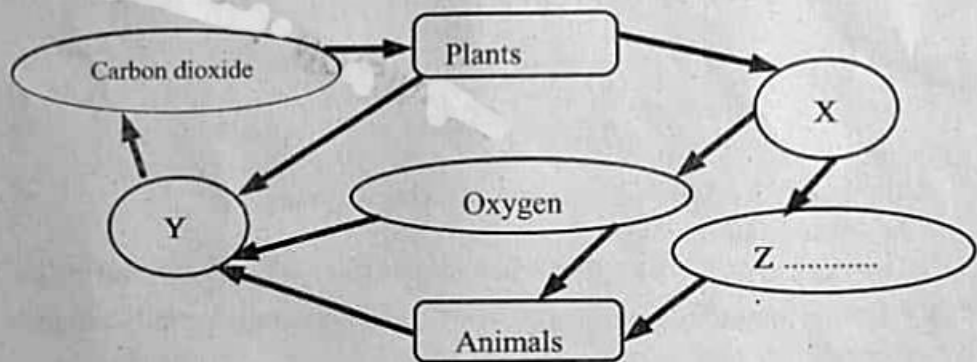
- What explanation would you give for the sweet taste experienced ?
- Write down the chemical changes which happen to rice in the parts given below as a result of digestion .
  - stomach
  - duodenum

18. Observe the figure and answer the questions.



- What does the figure indicate ?
- How does this part help in the absorption process ?
- Which are the simple nutrients that are absorbed to the part marked as X?
- Which process helps in the absorption of nutrients to X.

19. Analyse the illustration and answer the questions.



- Which are the processes indicated as X and Y?
- Mention the product indicated as Z ?
- Which process indicated in the illustration plays a major role in mitigating global warming? Why?

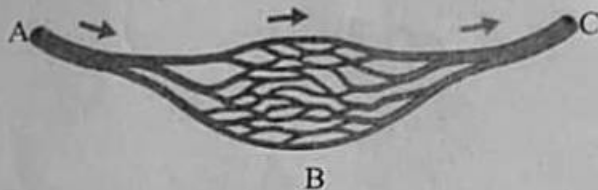
20. For diagnosing diseases doctors examine the pulse.

- What is pulse ?
- Which are the parts of the body where pulse can be felt?
- Will there be any change in the pulse rate if examined immediately after doing exercise? Why?

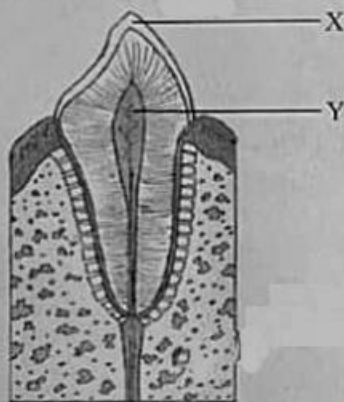
Answer any 2 from questions 21 - 23. Each question carries 4 score.

(2 x 4 = 8)

21. A, B and C in the illustration are three types of blood vessels. Observe the direction of blood flow and answer the questions given below.



- Which are the blood vessels indicated as A, B and C?
  - Which among these are without valves?
  - What is the role of B in the exchange of materials to the cells?
22. Redraw the diagram and answer the questions.



- Identify the type of tooth shown in the diagram.
  - Name and label the parts X and Y.
  - Suggest any two life styles to maintain the health of teeth and tongue.
23. Arrange the hints given below correctly in columns A and B and give appropriate headings.

- Takes place in grana
- Hydrogen is used
- Carbondioxide is used
- Oxygen is released.
- ATP is used
- Glucose is synthesised

A	B
• Light is used	