



ITL PUBLIC SCHOOL
MID TERM EXAMINATION (2024-25)

Date: 20.09.24

Class: VII

SCIENCE (086) – SET A

Time: 3hrs

M. M: 60

General Instructions:

- This question paper consists of 32 questions in 4 sections.
- All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

SECTION - A

1 Identify the devices shown below. 1

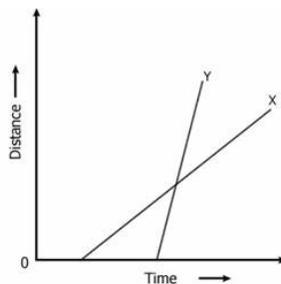


A



B

- 2 There are two animals named **A** and **B**. Among them, A can stay on land as well as in water. When it stays on land it respire through lungs but when it goes into water, it respire through its moist skin. Animal B is an aquatic animal which respire through nostrils and lungs. Give the name of animals A and B. 1
- 3 It is advised to brush teeth twice a day. Suggest suitable reason for the same. 1
- 4 Magnesium ribbon burns in air with a white dazzling light. What type of change it is and why? 1
- 5 Write the word equation for respiration performed by a unicellular microorganism in the production of beer and wine. 1
- 6 A simple pendulum oscillates 10 times in 20 seconds. Find its time period? 1
- 7 The distance-time graph for the motion of two cars X and Y is shown below. Which one of them is moving faster? 1



- 8 Describe the role of villi in small intestine. 1
- 9 How does the presence of acid in stomach helps in the digestion process? 1
- 10 Subroto observes a kink near the bulb of a clinical thermometer. What is the role of kink in clinical thermometer? 1

OR

Paper cups are used to serve hot drinks. Why?

11 Identify the picture given and state its function. 1



12 Ruminants hurriedly eat food and after sometimes bring that food back into their mouth for rechewing. 1

Name the process and state the purpose of bringing the food back in to the mouth by ruminants.

13 Rohit is a fitness freak. After heavy exercise in Gym he got cramps in his muscles. Inspect the reason for his muscle cramps. 1

14 Mukta measures the temperature of water at its boiling point to be 100 degree celsius What is its temperature in Fehrenheit scale. 1

Q no. 15 and 16 are Assertion-Reasoning based questions. These consist of two statements Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below.

- (a) A and R are true and R is the correct explanation of A.
- (b) A and R are true but R is not the correct explanation of A
- (c) A is true but R is False.
- (d) A is False but R is true.

15 **Assertion(A):** The stomach is protected against hydrochloric acid. 1

Reason (R) : The digestive juices protect the lining of the stomach.

16 **Assertion(A):** Photosynthesis can take place only in leaves. 1

Reason (R): The synthesis of food occurs in the presence of sunlight.

SECTION - B

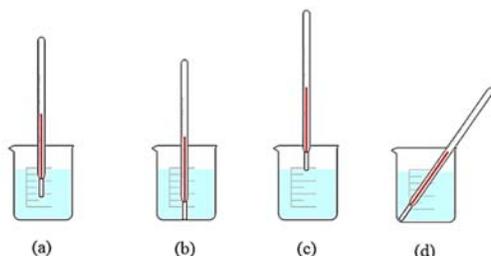
17 What is rusting? How can it be prevented? 2

18 Explain the breathing mechanism in Fish. 2

OR

Cockroach has small opening called **A** on the sides of its body and a network of tubes called **B** for the exchange of gases. Oxygen rich air rushes into the tubes and get **C** into the body cells. Whereas in earthworms exchange of gases takes place through their **D**.

19 The picture given below shows different ways of using laboratory thermometer by students in laboratories. 2



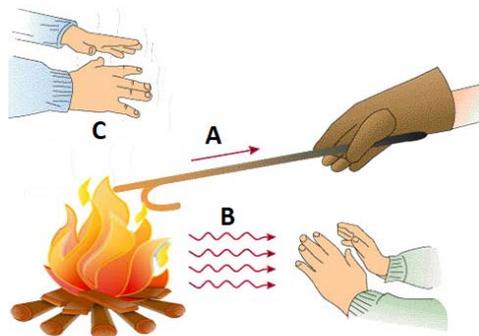
- a) Which one is the correct method of using laboratory thermometer and why?
- b) Alcohol is preferred over mercury in laboratory thermometer. Give reason

20 Salma takes 15 minutes from her house to reach her school on a bicycle. If the bicycle has a speed of 2m/s. Calculate the distance between her house and the school. 2

- 21 Burning of wood and cutting it into small pieces are considered as two different types of changes. Defend the statement by giving arguments in favour of both the types of changes. 2
- 22 Match the items in column A with those in column B 2

Column A	Column B
a) Salivary gland	i) Release of Bile
b) Liver	ii) Absorption of water
c) Rectum	iii) Amylase
d) Large intestine	iv) Formation of faeces

- 23 a) Identify the mode of heat transfer A, B and C in the given picture: 2



- b) Which mode of heat transfer does not require any type of material medium. 2
- 24 Sketch the basic cell structure and label the followings. 2
- a) Cell membrane b) Cytoplasm c) Nucleus

SECTION - C

- 25 a) Raisha bought a beautiful leather purse but she was surprised to see a white patch on the purse in rainy season. 3
- i) What is this white patch and why it appears in rainy season?
- ii) Identify the mode of nutrition of this organism .
- b) Explain symbiosis by taking an example of Lichens.

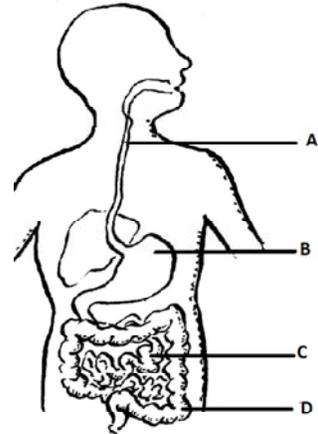
OR

Read the paragraph and answer the questions followed.

“Carnivorous plants are plants that derive some or most of their nutrients from trapping and consuming animals typically insects and occasionally small mammals and birds. They still generate all of their energy from photosynthesis. They have adapted to grow in waterlogged sunny places where the soil is thin or poor in nutrients, especially nitrogen”

- a) Propose the another term for carnivorous plants.
- b) Plant mentioned in the above part also performs photosynthesis. Analyse their act of consuming insects.
- c) Give any two examples of Carnivorous plants.
- 26 Read the paragraph given and answer the questions followed. 3
- “Dissolve about a teaspoon of copper sulphate in about half a cup of water in a glass tumbler. Add few drops of dilute sulphuric acid to the solution. Drop a nail into the solution and wait for half an hour.”*
- a) State the purpose of adding few drops of dilute sulphuric acid in to the solution in the above situation.
- b) Predict the colour change (if any) in the above situation.
- c) Write the word/chemical equation for the above reaction.

- 27 Give reason for the followings: 3
 a) In places of hot climate the outer walls of houses are painted white.
 b) Wearing more layers of clothes during winters keeps us warm.
 c) The range of clinical thermometer is 35°C to 42°C
- 28 Compare aerobic and anaerobic respiration on the following parameters: 3
 i) Presence of oxygen ii) Products formed iii) Energy released
- 29 Construct an activity to prove that exhaled air contains carbon dioxide. (Points to cover: Aim, Material required, Diagram, Procedure and Result) 3
- 30 a) Label the parts A, B, C and D in the diagram of human digestive system shown below. 3



- b) In which labeled part
 i) No digestion takes place
 ii) Digestion is completed

SECTION - D

- 31 a) Examine the situation given in the picture and Identify the type of respiration shown. 5
 b) Propose the situation in which this type of respiration is given to a person.
 c) Does the person need to be kept on this type of respiration temporarily or permanent?
 d) From where the person get the supply of oxygen for this respiration?



OR

- a) Students of class 8 prepared a working model of the breathing mechanism in humans using balloons, straw etc.
 i) What does balloon and a rubber sheet symbolizes in the model?
 ii) What will happen if the sheet is pulled in the downward direction?
 iii) Mark the significance of the act of pushing the rubber sheet inside in the model with reference to human body?
 b) Inspect the phenomenon of sneezing on inhaling dust-laden air?



- 32 a) Plot the distance-time graph for the data given below and answer the questions followed: 5
- | | | | | | |
|-------------|---|---|----|----|----|
| Distance(m) | 0 | 5 | 10 | 15 | 20 |
| Time(s) | 0 | 2 | 4 | 6 | 8 |
- b) Looking at the graph line in the above question, infer the type of motion exhibited by the body in motion.
 c) Calculate the instant speed of the body at time $t=4$ second.