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MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

**GENERAL
EDUCATION AND TRAINING**

GRADE 8

NATURAL SCIENCES

TERM 1 2024

MARKS: 50

TIME: 60 Minutes

INSTRUCTIONS

1. This question paper consists of **4 pages** including the cover page.
2. Answer **ALL** the questions.
3. Number the answers correctly following the numbering system used in this question paper.
4. Write neatly and legibly.

SECTION A

QUESTION 1

1.1. Various options are provided as possible answers to the following questions. Choose the answers and write only the letter (A – D) next to the question number (1.1.1 – 1.1.10).

1.1.1. During the test for starch, a green leaf is placed in boiling alcohol to ...

- A break the cell walls
- B to extract the chlorophyll
- C to remove starch.
- D stops metabolic processes.

(1)

1.1.2. Which of the following is arranged from largest to smallest?

- A Population, community, ecosystem, biosphere.
- B Ecosystem, biosphere, community, population.
- C Biosphere, ecosystem, community, population.
- D Biosphere, ecosystem, population, community.

(1)

Question 1.1.3 and 1.1.4 are based on the diagram of the food chain below. Study it and answer the questions.

Grass → locust → frog → snake

1.1.3. What do the arrows in the food chain above indicate?

- A. Trophic levels
- B. Who consumes/eats whom
- C. Flow of energy
- D. A common food chain

(1)

1.1.4 In the food chain shown above, which organism is the autotroph?

- A Snake
- B Locust
- C Frog

D Grass

(1)

1.1.5 Which of the following causes malaria in humans?

A Protista.

B Fungi.

C Bacteria.

D Viruses.

(1)

[5]

1.2 Give one word/term for each of the following statements. Write only the word/term next to the question number.

1.2.1 Two or more things that depend or rely on each other.

1.2.2 The process that allows plants to produce their own food

1.2.3 Energy that is absorbed by plants to make food

1.2.4 A group of interconnected food chains.

1.2.5 A disease that is caused by *Plasmodium vivax*.

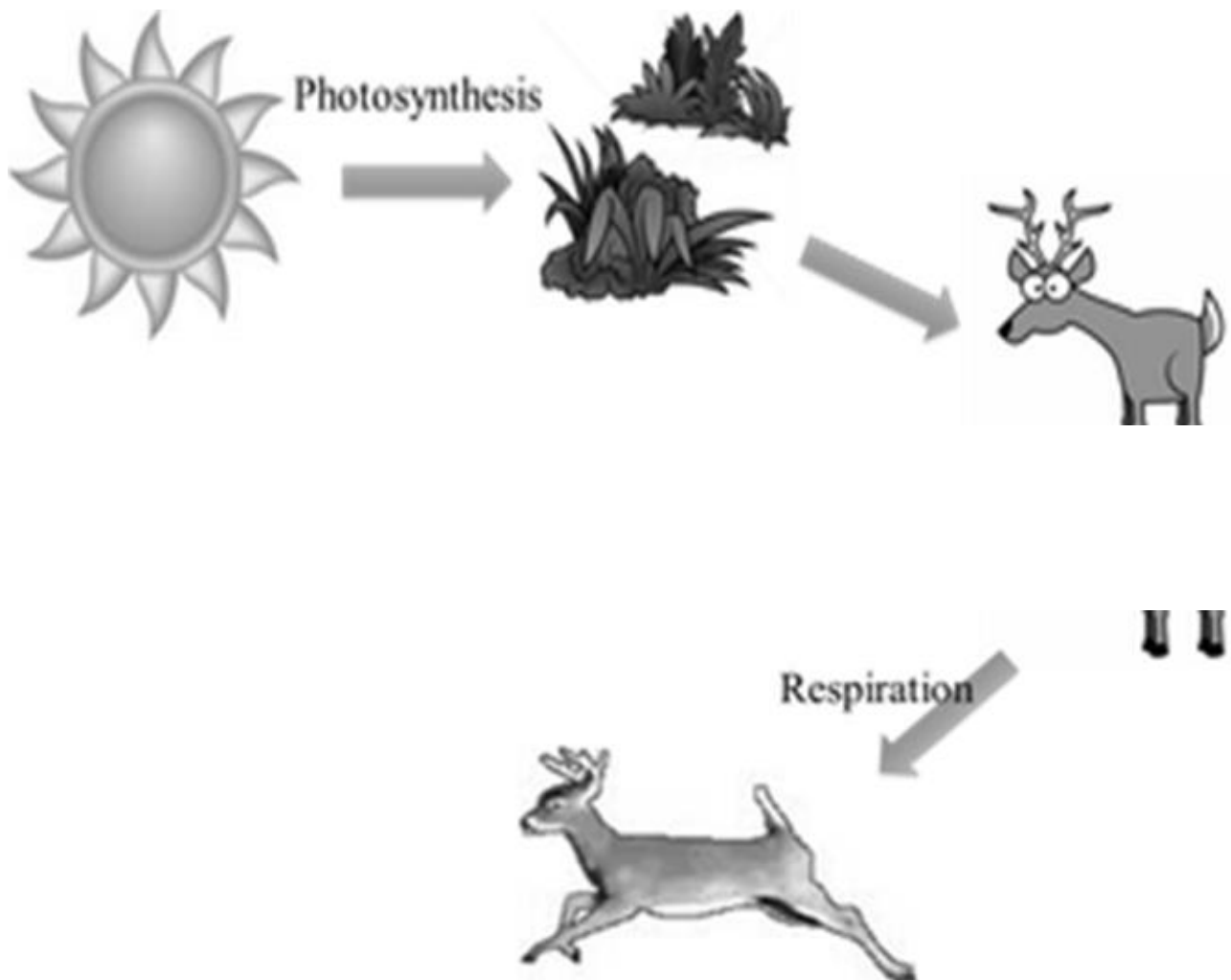
[5]

TOTAL SECTION A [10]

SECTION B

QUESTION 2

The following diagram illustrates two life sustaining processes. Answer the questions that follow:



2.1 Describe the process of the photosynthesis

(2)

2.2 Write down the word equation for respiration

(2)

2.3 Which process will take place in the following organisms? **ONLY** write **PHOTOSYNTHESIS** or **RESPIRATION** or **BOTH**.

2.3.1 Animals

(1)

2.3.2 Plants

(1)

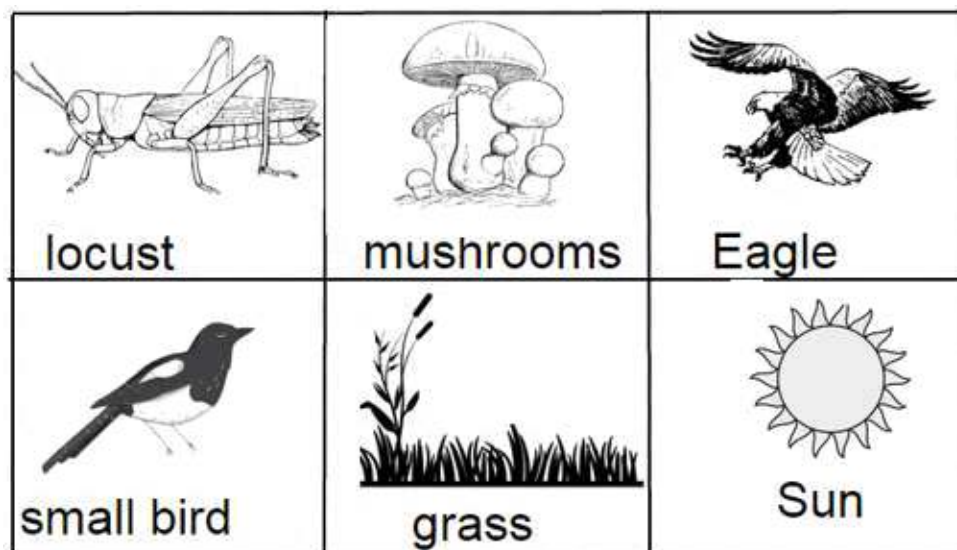
2.4 Explain the relationship between glucose and starch.

(1)

[7]

QUESTION 3

Study the diagram below and answers the questions that follow.



3.1 Write down the name of one herbivore that is found in the diagram.

(1)

3.2 Write down the name of a decomposer that is found in the diagram.

(1)

3.3 Write down a food chain consisting of five different organisms found in the diagram. Do not redraw the pictures. Use the words given in the diagram.

(3)

3.4 Are plants or animals the better source of energy of humans? Explain your choice by referring to the trophic levels in which plants and animals.

(3)

[8]

TOTAL SECTION B:[15]**SECTION C****QUESTIN 4**

4.1 One of the pupils at Thandi's school is HIV positive. Thandi is worried that she may become infected with HIV if she shares a classroom and school equipment with this person. Write a paragraph in which you explain:

4.1.1 What HIV positive means

(1)

4.1.2 Why there is very little risk of Thandi becoming infected with HIV

(4)

[5]

QUESTION 5

Answer the following questions.

5.1 Mention the **SEVEN** life processes. (7)

Use the words in the box to label the figure below. (4)

Oxygen , Water and mineral salts, Carbon dioxide, Solar energy
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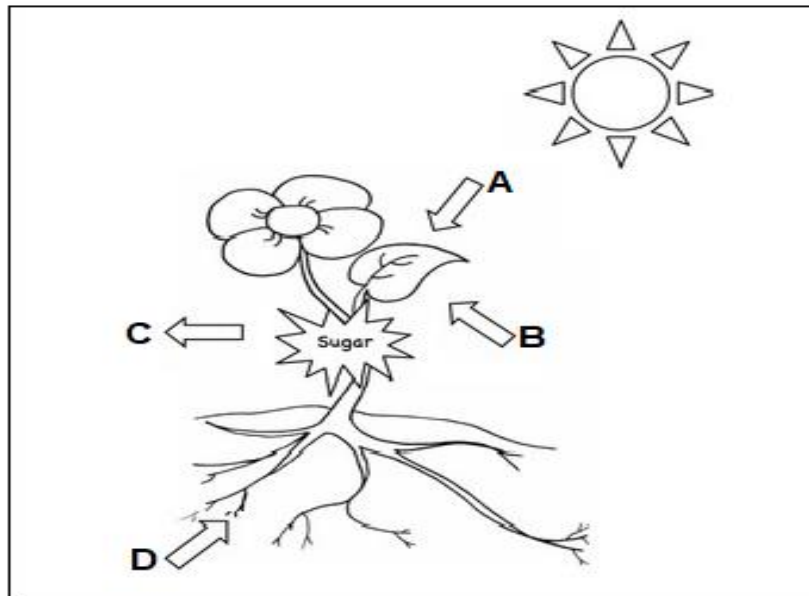


Figure 1: Photosynthesis

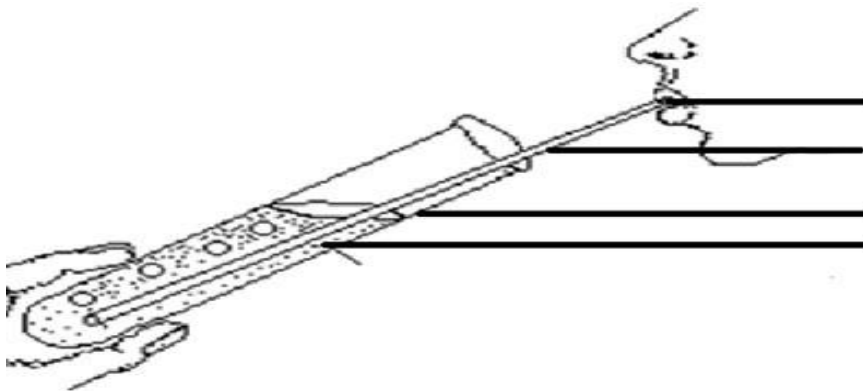
5.3 Define photosynthesis and give **TWO** requirements.

(4)

[15]

QUESTION 6

6.1 Answer the questions, based on the experiment below.



- the beaker contains a solution of clear lime water
- A straw is placed into the clear lime water solution and someone exhaled (breath out) through the straw into the solution.

6.1.1 In your opinion, what is the experiment testing for?

(1)

6.1.2 What happens to the clear lime water after someone exhale into it?

(1)

6.1.3 Formulate a chemical equation in the process where this gas is a

by-product.

(3)

[5]

TOTAL SECTION C: [25]

GRAND TOTAL: [50]

