

**NATURAL SCIENCE AND TECHNOLOGY**  
**TERM 2 COMMON TEST**  
**JUNE 2019**  
**GRADE 6**

**Time: 1.5 hours**

**Marks: 60**

**Name of learners:** \_\_\_\_\_

<b>60</b>

**Marks obtained =**

**Instructions and information**

1. Answer all questions.
2. Answer all questions in the spaces provided in the question paper.
3. Write neatly and legibly.

**SECTION A****Question 1**

1.1 Four possible answers are given for each question below. Circle only the letter of the correct answer in this question paper.

Example: 1.1.6 (D)

1.1.1. The name given to the sugar that plants produce during photosynthesis is called \_\_\_\_\_

- A proteins
- B starch
- C glucose
- D vitamins

1.1.2 Which of the following element in minerals is responsible for strengthening of bones and teeth?

- A. Carbon
- B. Calcium
- C. Potassium
- D. Iodine

1.1.3. Table salt (NaCl) dissolves in water (H<sub>2</sub>O) and is said to be \_\_\_\_\_ in water.

- A. Solvent
- B. Solution
- C. Insoluble
- D. Soluble

1.1.4. In a box there is a mixture of iron fillings and sand. Which is the easiest way to separate the iron fillings from the sand?

- A. Pour water on the mixture
- B. Use a magnifying glass
- C. Use a magnet
- D. Heat the mixture

1.1.5. An example of food preservation method

- A. Pickling
- B. Vitamins

- C. Proteins  
D. Wetlands

(5)

1.2 Give ONE word for each of the following:

1.2.1 The process whereby plants make food using the Sun' energy\_\_\_\_\_

1.2.2. All food-eating organisms \_\_\_\_\_

1.2.3. The chemical we use to test starch\_\_\_\_\_

1.2.4. The process whereby raisins are made from grapes\_\_\_\_\_

1.2.5. A condition where a person is dangerously overweight\_\_\_\_\_

(5)

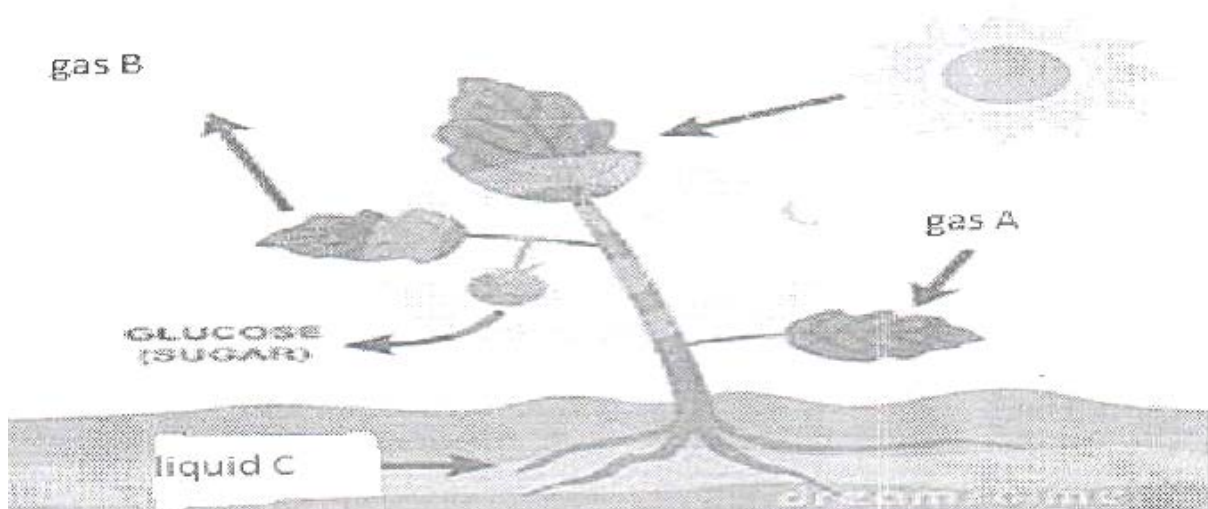
1.3 Listed on the table below is the preservation method; match the Preservation methods in Column A with the correct description of the Method in Column B.

Column A	Answer	Column B
1.3.1.Salting		A. Food is soaked in a solution of salt and vinegar
1.3.2.Pickling		B. This method uses micro-organisms to break food down
1.3.3.Fermantation		C. Food is dehydrated by taking all the moisture out of it.
1.3.4.Freezing		D. Dry, edible salt is added to food.
1.3.5.Drying		E. Vegetables are kept at very low temperature to last longer

(5)

TOTAL FOR SECTION A: [15]

**SECTION B**  
**QUESTION 2**



**2.1 There are five important requirements for photosynthesis. Identify any THREE of those important things that need to be there in order for photosynthesis to take place.**

**2.1.1.** \_\_\_\_\_ (1)

**2.1.2.** \_\_\_\_\_ (1)

**2.1.3.** \_\_\_\_\_ (1)

**2.2**

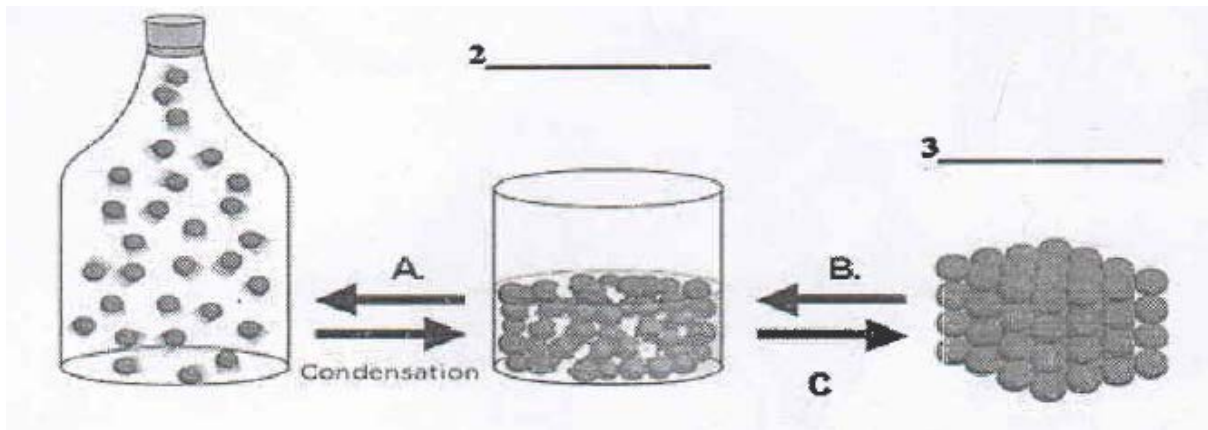
**2.2.1 Name gas taken in by plants during photosynthesis**

\_\_\_\_\_ (1)

2.2.2 Name gas given out by plants as a product of photosynthesis. \_\_\_\_\_ (1)  
[5]

### QUESTION 3

3.1 Study the picture below and answer the following questions:



3.1.1 What do we call the solid state of water?

\_\_\_\_\_ (1)

3.1.2 What do we call the gas state of water?

\_\_\_\_\_ (1)

3.1.3 Identify processes A,B,C

A. \_\_\_\_\_ (1)

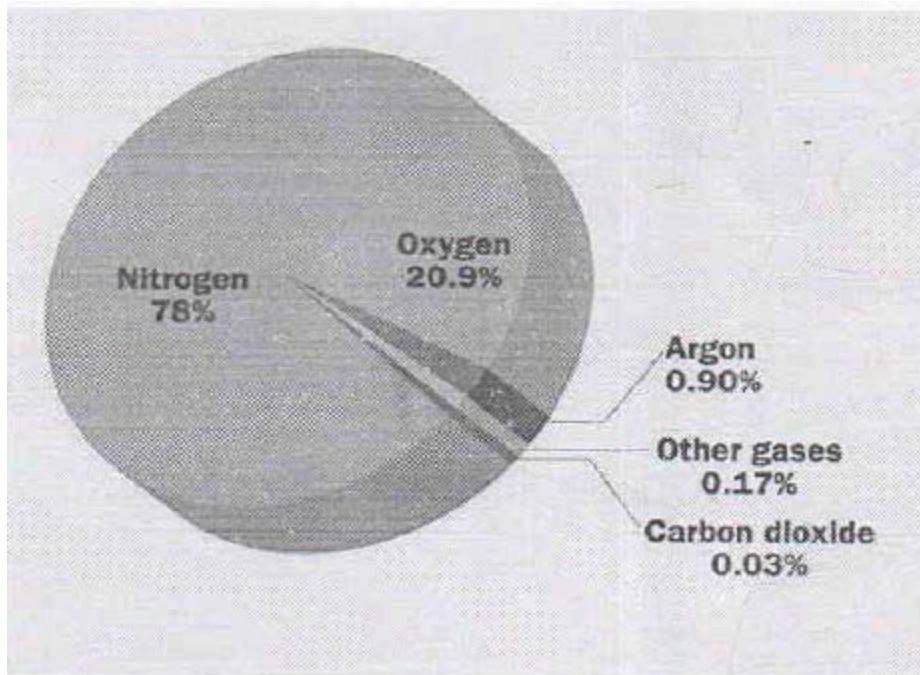
B. \_\_\_\_\_ (1)

C. \_\_\_\_\_ (1)

[5]

### 3.2 Air in the atmosphere.

Study the pie chart and answer questions that follow.



3.2.1 Air is a mixture of different gases. What gas in the air do we need to breathe in order to live? \_\_\_\_\_ (1)

3.2.2 List TWO gases and their amounts in percentage that are found in clean air

(i) \_\_\_\_\_ (1)

(ii) \_\_\_\_\_ (1)

3.2.3 According to this graph, what is the amount of other gases in the atmosphere in percentage?

\_\_\_\_\_ (1)

**3.2.4. If you had 5000 air particles, how many of these particles would be oxygen particles? Show all of your calculations.**

\_\_\_\_\_ (1)

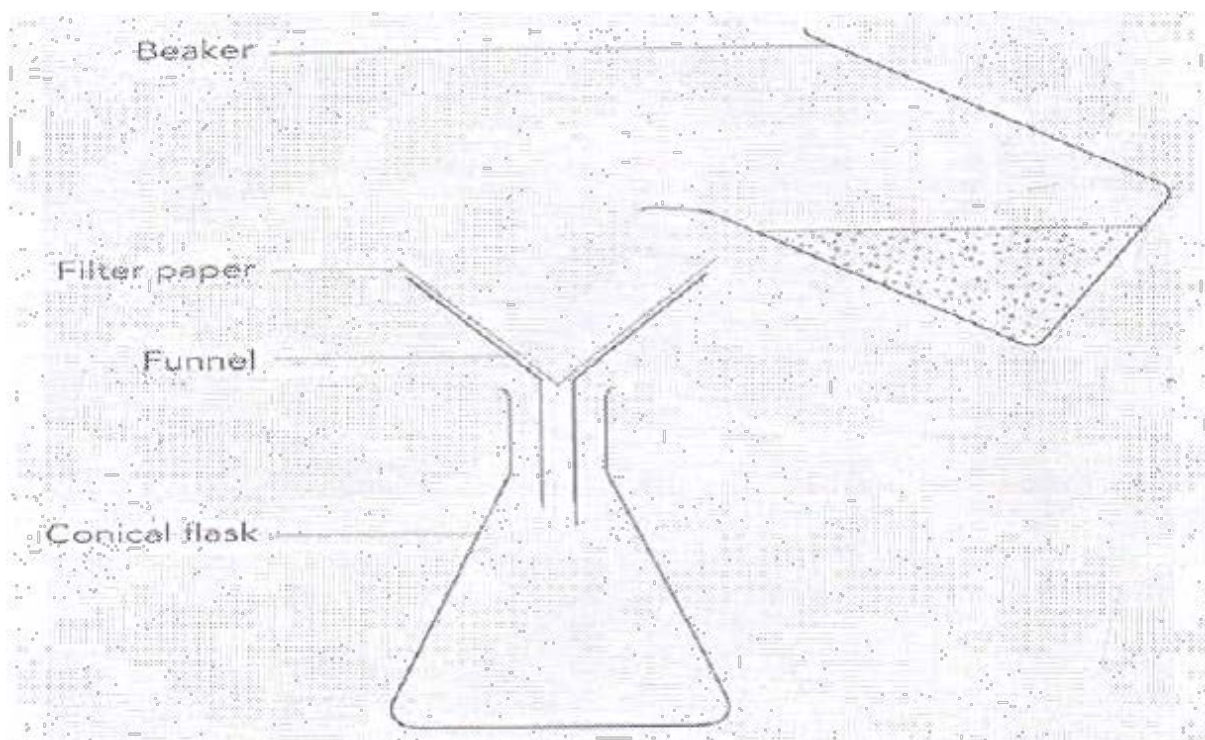
\_\_\_\_\_ (1)

\_\_\_\_\_ (2)

[8]

#### **Question 4**

**4.1. In the picture below a mixture of sand and water is poured through a filter.**



**4.1.1. What is the process called?**

\_\_\_\_\_ (1)

**4.1.2. Explain why do the sand grains stay behind on the filter paper.**

\_\_\_\_\_ (2)

**4.1.3. What was the mixture of sugar and water called?**

\_\_\_\_\_ (1)

**4.1.4. What would happen if the mixture of sugar and water is poured through a filter?**

\_\_\_\_\_ (2)

**4.1.5. Would it be possible to separate the water and sugar? If yes how?**

\_\_\_\_\_ (2)

**4.1.6. Why is it not possible to separate a solution through a filter?**

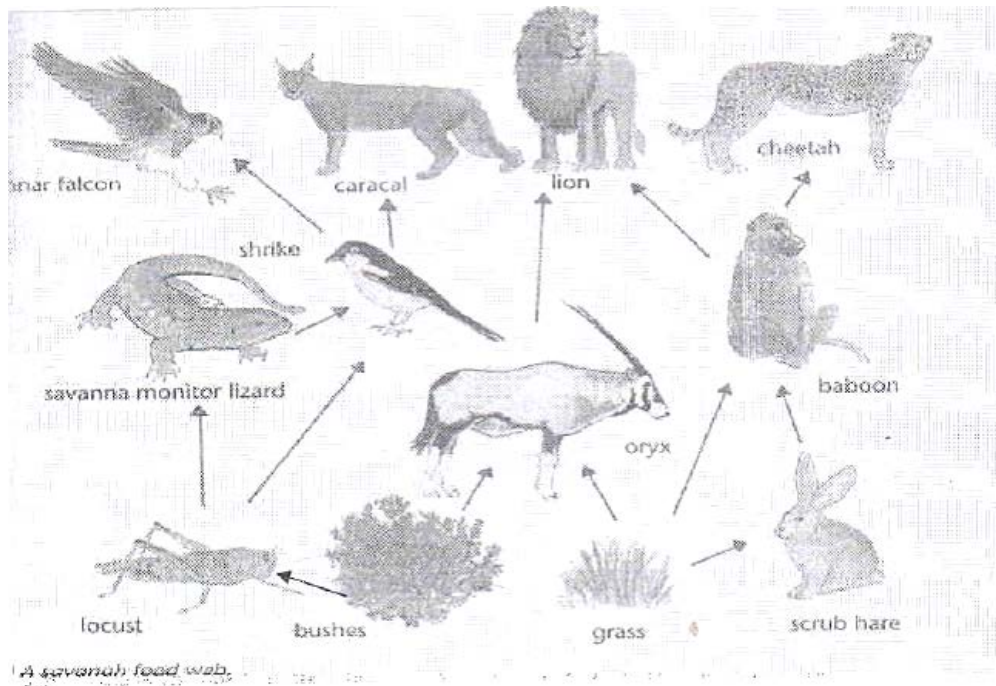
\_\_\_\_\_ (2)

[10]



**Question 5**

Study the food-web below and answer questions that follow.



**5.1. Name: one producer , one herbivore , one carnivore**

**5.1.1. One producer**

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**(1)**

**5.1.2. One herbivore**

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**(1)**

**5.1.3. One carnivore**

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**(1)**

**[3]**

**Question 6**

**6.1. Your friend would like to reduce his / her mass. He looked at the labels on two cans of food.**

<b>Butter beans</b>	
<b>Food groups in each 100g</b>	
<b>Energy</b>	<b>348kj</b>
<b>Protein</b>	<b>6g</b>
<b>Fat</b>	<b>0.6g</b>
<b>Carbohydrates</b>	<b>14g</b>
<b>Fibre</b>	<b>5.8g</b>

<b>Tomatoes</b>	
<b>Food groups in each 100g</b>	
<b>Energy</b>	<b>70kj</b>
<b>Protein</b>	<b>1g</b>
<b>Fat</b>	<b>0.1g</b>
<b>Carbohydrates</b>	<b>3g</b>
<b>Fibre</b>	<b>0.5g</b>

**6.1.1. Which food would be better for him to eat?**

\_\_\_\_\_ (1)

**6.1.2. Give two reasons for the answer you gave in 6.1.1.**

\_\_\_\_\_ (2)

\_\_\_\_\_

**6.1.3. Which of these two food types is better for someone with constipation?**

\_\_\_\_\_ (1)

**6.1.4. Give one reason for your answer.**

\_\_\_\_\_ (1)

**6.1.5. For an active teenager; which food would be best?**

\_\_\_\_\_ (1)

**6.1.6. Give one reason to support your answer.**

\_\_\_\_\_ (1)

[7]

**6.2 A grade six learner investigates how temperature of water affect how fast salt dissolves in water.**

**Method: He measures equal amount of water of different temperatures and pour it in three different beakers**

**He poured one teaspoon of fine salt in each beaker**

**He stirred the mixture until all the salt has dissolved**

**He recorded the time it took for the salt to be completely dissolved in each beaker.**

**6.2.1 Write down the question that this learner is investigating.(Investigative question)**

\_\_\_\_\_ (2)

**6.2.2 Which variable is the learner changing? (independent variable)**

\_\_\_\_\_ (1)

**6.2.3 Which variable is the learner measuring? (dependent variable)**

\_\_\_\_\_ (1)

**6.2.4 Write down two things that the learner has done to ensure that the investigation is a fair test**

\_\_\_\_\_  
\_\_\_\_\_ (2)

**6.3 The learner recorded his results in the table below**

<b>Beaker</b>	<b>Temperature</b>	<b>Time it took for salt to dissolve</b>
<b>A</b>	<b>5</b>	<b>9mins</b>
<b>B</b>	<b>25</b>	<b>5.5mins</b>
<b>C</b>	<b>90</b>	<b>2.8mins</b>

**6.3.1 What conclusion can you reach based on the result he recorded?**

\_\_\_\_\_ (1)

[7]

**Total for Section B=45**

**Grand Total:60**