



SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE  
SUID-AFRIKAANSE KOMPREENSIEWE ASSESSERINGSINSTITUUT

**Adult Basic Education and Training (ABET)  
Site-Based Assessment  
Portfolio of Evidence**

**Natural Sciences:** NQF Level 1  
**Total:** 50 marks  
**Duration:** 1 Hour 30 minutes  
**Task 4:** Test

**Learner Information**

**Name** : \_\_\_\_\_  
**Surname** : \_\_\_\_\_  
**Identity/  
Passport Number** : \_\_\_\_\_  
**Employee Number** : \_\_\_\_\_  
**Company** : \_\_\_\_\_  
**Centre** : \_\_\_\_\_  
**Date** : \_\_\_\_\_

**Declaration**

*I declare that this portfolio of evidence is my own work:* \_\_\_\_\_

**Signature**



**INSTRUCTIONS**

1. This Test consists of **FIVE QUESTIONS**.
2. Complete **ALL** the **QUESTIONS**.
3. Answer all the questions in the spaces provided.
4. Adhere to the numbering used in this Test.



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

1.1 Various possible options are provided as answers for the following questions or statements. Choose the answer and ENCIRCLE only the correct letter [A-D].

1.1.1 Which of the following is non-recyclable?

- A. Mercury
- B. Rubber
- C. Paper
- D. Glass (1)

1.1.2 Iodine solution is used to test for \_\_\_\_\_ in certain foods.

- A. water
- B. starch
- C. calcium
- D. fat (1)

1.1.3 Identify a non-natural science field of study.

- A. Gynaecology
- B. Astronomy
- C. Pedology
- D. Criminology (1)

1.1.4 An example of indigenous technology.

- A. Greenhouse farming
- B. Organ transplant
- C. Sorghum beer making
- D. Invitro-fertilization (1)



1.1.5 Which item will turn a litmus paper blue?

- A. Toothpaste
  - B. Citrus fruit
  - C. Cabbage water
  - D. Brine
- (1)

**Total Marks for Question 1.1**

**[05]**

1.2 Indicate whether the following statements are TRUE or FALSE.

Choose the answer and write only **TRUE** or **FALSE** in the spaces provided

1.2.1 Rocks are made from weathering soil.

(1)

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1.2.2 All waste can be recycled.

(1)

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1.2.3 Scientists prefer using distilled water than tap water when conducting experiments.

(1)

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1.2.4 Mining technology is an advantage to a country's economy.

(1)

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1.2.5 Compost is produced from biodegradable waste.

(1)

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**Total Marks for Question 1.2**

**[05]**



- 1.3 Choose a term from COLUMN B that matches a statement in COLUMN A. Write only the letter (A – F) **UNDER** the question number (1.3.1 – 1.3.5) in the table below.

	<b>COLUMN A</b>		<b>COLUMN B</b>	
1.3.1	Absorbs water molecules in experiments	<b>A</b>	Salt and water	(1)
1.3.2	Products of an acid – base reaction	<b>B</b>	Planets	(1)
1.3.3	Substances obtained from microorganisms	<b>C</b>	Sorting	(1)
1.3.4	Sun, moon and earth	<b>D</b>	Calcium chloride	(1)
1.3.5	Waste management process	<b>E</b>	Natural satellites	(1)
		<b>F</b>	Antibiotics	

<b>Column A</b>	<b>1.3.1</b>	<b>1.3.2</b>	<b>1.3.3</b>	<b>1.3.4</b>	<b>1.3.5</b>
<b>Column B</b>					

**Total Marks for Question 1.3**

**[05]**

**Total for Section A: 15 Marks**  
**SECTION B is on the next page.**



**SECTION B****Question 2: Life and Living**

Sakhile is overweight and has decided to embark on brisk walking (walking fast) every morning to try lose some weight. The table below shows the results of his brisk walking at a particular period.

<b>TIME (Minutes)</b>	<b>DISTANCE (metres)</b>
1	50
2	100
3	150
4	250
5	400

- 2.1 On average, what was Sakhile's speed (in m/s) for the first 3 minutes? (2)

Use the formula:  $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$

- 2.2 Mention ONE observation, of what you think happened to Sakhile's brisk walking between 3 to 5 minutes. (1)

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2.3 Suggest another possible way to present the results given in the table. (1)

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2.4 Provide THREE other forms of exercise Sakhile may do to lose weight. (3)

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2.5 List TWO illnesses that are a result of being overweight. (2)

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**Total Marks for Question 2**

**[09]**



**Question 3: Energy and Change**

Carefully study the picture and answer the questions that follow.



Source: [www.CityPower.gov.za](http://www.CityPower.gov.za)

3.1 Mention TWO materials used to make a candle. (2)

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3.2 Classify the use of a candle as either Indigenous or Modern Technology. (1)

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3.3 Describe the transformation of energy occurring on the lit candle. (2)

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3.4 Identify the energy lost while the candle is lit. (2)

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3.5 Provide TWO possible reasons why the learners are using candles when reading. (4)

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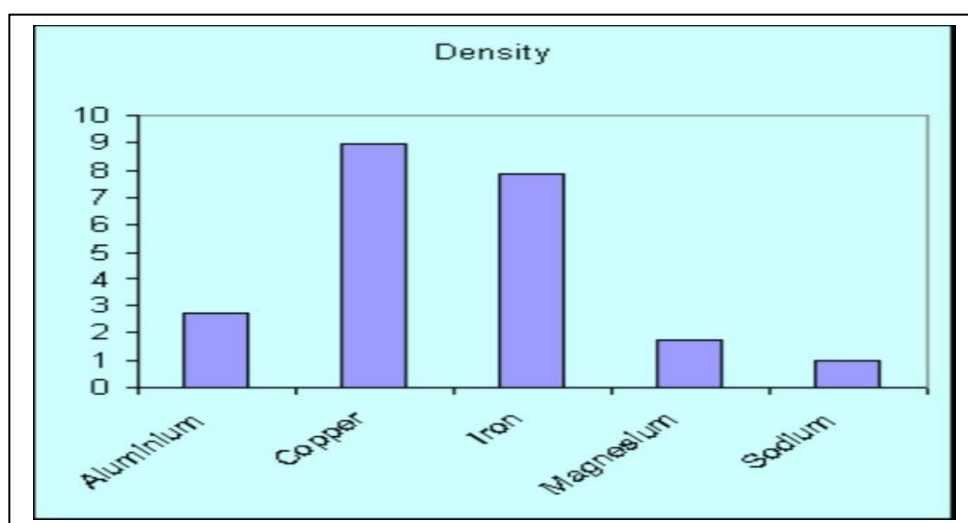
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**Total Marks for Question 3**

**[11]**

#### Question 4: Matter and Materials

Study the graph below and answer the questions that follow.



Source:Gcsescience.com

4.1 Complete the following statement. (2)

Density is a measure of \_\_\_\_\_

4.2 What is the density of water in grams per cubic metre? (1)

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4.3 Which substance will float in water? (1)

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4.4 State a possible reason why the substance in 4.3 will float in water. (2)

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4.5 Calculate the mass of copper if its volume per unit is 50 ml. (2)

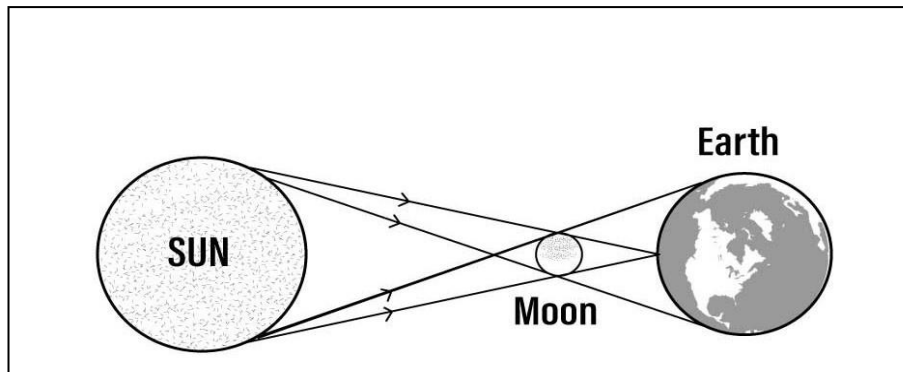
Use the formula: ***mass = density x volume***

**Total Marks for Question 4**

**[08]**

**Question 5: Earth and Beyond**

Study the diagram and answer the questions that follow.



Source: [eclipse.nasa.org](http://eclipse.nasa.org)

5.1 Identify the type of eclipse illustrated by the diagram. (1)

5.2 Which side of the Moon will be illuminated? (1)

5.3 Describe the positioning of the celestial bodies for a total eclipse to occur. (1)

5.4 In setting up an experiment to demonstrate a total eclipse, what material would you use for the:

5.4.1 Sun : (1)

5.4.2 Earth : (1)

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5.4.3 Moon : (1)

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5.5 Which type of general eyeware is recommended for people to put on when viewing the eclipse mentioned in 5.1? (1)

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**Total Marks for Question 5 [07]**

**GRAND TOTAL FOR TASK 4 [50]**



**Total for Task 4: 50 Marks**

<b>Task</b>	<b>Question</b>	<b>Maximum Mark</b>	<b>Learner's Mark</b>	<b>Moderated Mark</b>
<b>Task 4</b>	<b>Question 1</b>	<b>15</b>		
	<b>Question 2</b>	<b>09</b>		
	<b>Question 3</b>	<b>11</b>		
	<b>Question 4</b>	<b>08</b>		
	<b>Question 5</b>	<b>07</b>		
	<b>Total: Task 4</b>		<b>50</b>	

