Mauritius Examinations Syndicate
Prevocational Examination
Specimen Paper Year IV

NUMERACY & PROBLEM SOLVING SKILLS
UNDERSTANDING NATURE

DURATION: 1 HOUR

Instructions

1. Write your Name, Index Number and School Name in the space provided above.

2. You should not use red ink in answering questions.

3. Write all your answers clearly on the question paper.

4. Attempt all questions.
Question 1 (10 marks)

Circle the correct answer.


A  caused death due to hunger.
B  caused severe drought.
C  destroyed houses and fields.
D  caused death due to intense cold.

b) Which one of the following describes intense rainfall for more than 24 hours?

A  Gusts  B  Flash Floods
C  Torrential rainfall  D  Global Warming

c) In which one of the following does the Earth tremble for a few seconds?

A  Tsunami  B  Earthquake
C  Volcanoes  D  Landslide

d) Waste plastic products can be converted into new products. What is the name of this process?

A  Reduction  B  Recycling
C  Recondition  D  Reconstruction

e) We can make ……………………………..from organic materials such as leaves.

A  compost  B  soil
C  clay  D  pesticides
f) Which one of the following is an example of a green waste?
   A  Glass  B  Iron nails  
   C  Dry cells  D  Branches

g) Which one of the following hazards can cause food poisoning?
   A  Spreading of microbes by rats in a market  
   B  Placing many plugs in the same socket  
   C  Leaving objects lying on the floor  
   D  Piling books high on a shelf

h) Which one of the following shows the correct order of the 3Rs principle?

   A
   Reduce
   Recycle
   Reuse

   B
   Refuse
   Reduce
   Reuse

   C
   Reduce
   Reuse
   Recycle

   D
   Recycle
   Refuse
   Reuse

i) Which one of the following materials is a non conductor of electricity?
   A  Copper  C  Iron  
   B  Aluminium  D  Plastic
j) Which one of the following signs shows a risk of electric shock?

![Signs](image)

A  B  C  D

**Question 2 (8 marks)**

a) Study the picture in **diagram 1** and identify 3 living and 3 non living things

![Diagram 1](image)

**Diagram 1: Living and non living things**

<table>
<thead>
<tr>
<th>3 living things</th>
<th>3 non living things</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
b) One characteristic of living things is reproduction. Give two other characteristics of living things.

I. ..............................................................................................................................................

II. ..............................................................................................................................................

Question 3 (8 marks)

a) Match Column A, showing some hazards, with the corresponding precautions that can be taken to avoid them from Column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrocution</td>
<td>Keep the floor free from soaps or detergents.</td>
</tr>
<tr>
<td>Suffocation</td>
<td>Be careful when using matches.</td>
</tr>
<tr>
<td>Poisoning</td>
<td>Repair all damaged electric wires.</td>
</tr>
<tr>
<td>Falling</td>
<td>Close all cooking gas tightly.</td>
</tr>
<tr>
<td>Burning</td>
<td>Keep food well covered and refrigerated.</td>
</tr>
</tbody>
</table>

b) Study diagram 2 below. Circle three hazards which can be seen in this picture.

Diagram 2: Man mowing the lawn under heavy rainfall
Question 4 (8 marks)

a) **Diagram 3** shows an incomplete electric circuit.

![Diagram 3: Incomplete electric circuit](image)

Below is a list of objects.

Circle two objects which, when inserted in the circuit, will cause the bulb to light up.

- Plastic Ruler
- Piece of woolen thread
- Steel fork
- Iron key
- Eraser
b) Study **diagram 4** below which shows man A getting an electric shock on an electrified fencing. Man B is rushing to help him.

![Diagram 4: Man A getting an electric shock](image)

**Diagram 4: Man A getting an electric shock**

I. In the diagram, Man B is giving his hand to Man A to help him. Why is this dangerous for Man B?

……………………………………………………………………………………………………

II. Give two precautions that Man B must take while helping Man A.

1. …………………………………………………………………………………………………
……………………………………………………………………………………………………

2. …………………………………………………………………………………………………
……………………………………………………………………………………………………
Question 5 (9 marks)

Study diagram 5 which shows the trajectory of a cyclone. At 05 00 am on the 22\textsuperscript{nd} February, the cyclone is at the point indicated by the arrow. It is moving at a speed of 15 km/hr. Mauritius is expected to register winds of 120km/hr or more in the next 12 hours.

Diagram 5: Cyclone trajectory

a) In which season are cyclones more commonly formed in the Indian Ocean?

..................................................................................................................................................................................

b) In which direction is the cyclone moving?

..................................................................................................................................................................................

c) Why is Madagascar affected by cyclones more often than Mauritius or Rodrigues?

..................................................................................................................................................................................
..................................................................................................................................................................................
d) The Meteorological Services issued a class 2 warning when the cyclone was in the position shown by the arrow in the diagram. Explain why.

………………………………………………………………………………………………..
……………………………………………………………………………………………….. 

e) Name another natural calamity which affects your country regularly.

………………………………………………………………………………………………..

f) What harm does the natural calamity you named in part (d) cause to your country?

………………………………………………………………………………………………..
………………………………………………………………………………………………..

Question 6 (7 marks)

Study Diagram 6 below. The school wants to protect the environment and is reusing and recycling many products.

Diagram 6: Bright Kids School
a) What does the sign drawn on the teacher’s board (shown by the arrow) represent?

b) Give two examples from the diagram where the school is either recycling or reusing waste.

I. ........................................................................................................................................

II. ........................................................................................................................................

c) When we consume a lot we create more waste. Why is creating more waste bad for the environment?

........................................................................................................................................

........................................................................................................................................