



Let the mind manage the body
Que l'esprit gère le corps

SCIENCE

(Subject code No. P141/2)

Index Number:

MAURITIUS EXAMINATIONS SYNDICATE
Primary School Achievement Certificate Assessment
Grade 6 Modular
August 2018
Time: 1 hour
Total Marks: 50

INSTRUCTIONS TO CANDIDATES

1. Check that this assessment booklet contains 6 questions printed on 10 pages numbered 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11.
2. Write your Index Number on the assessment booklet in the space provided above.
3. You should not use red, green or black ink in answering questions.
4. Write all your answers clearly in the assessment booklet.
5. Attempt all questions.

Question	Marking		Revision		Control	
	Marks	Sig	Marks	Sig	Marks	Sig
1						
2						
3						
4						
5						
6						
Total						
Sig (HoG)						

Question 1 (5 marks)

Circle the correct answer.

1. The set of teeth which **replaces** the set of milk teeth in humans is called
 - A** permanent teeth
 - B** baby teeth
 - C** molar teeth
 - D** canine teeth

2. **Diagram 1** shows the movement of the Earth around the Sun.

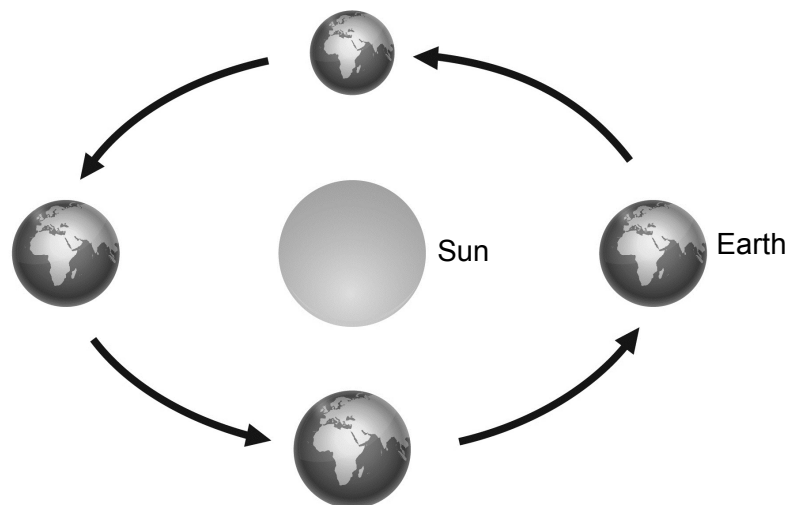


Diagram 1: Movement of the Earth around the Sun

How long does the Earth take to make a complete rotation **around the Sun**?

- A** 1 day
- B** 1 week
- C** 1 month
- D** 1 year

3. **Diagram 2** shows part of a forest ecosystem.

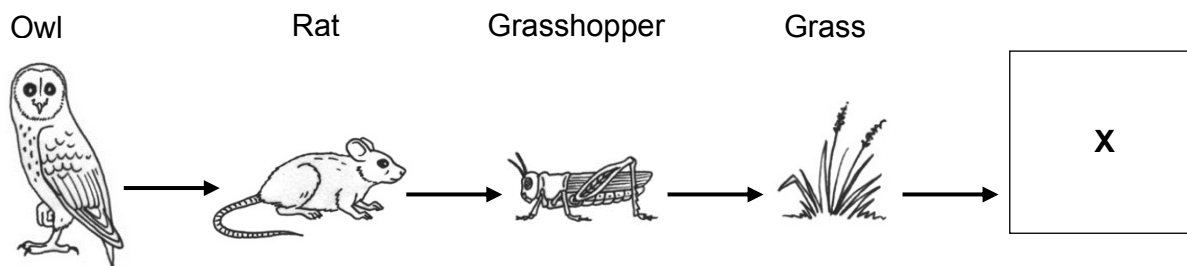


Diagram 2: Part of an ecosystem

What is the missing part in box **X** of this chain?

- A** Ant **C** Sun
B Rock **D** Human
4. **Diagram 3** shows solar panels used to produce electricity.

One **disadvantage** of using this source of energy is that

- A** it causes pollution.
B it will run out one day.
C the panels have to be replaced each month.
D less electricity is produced when there is less sunlight.



Diagram 3: Solar panels

5. **Diagram 4** shows a suction cup stuck on a window pane.



Diagram 4: Suction cup on a window pane

Which one of the following explains why the suction cup **remains stuck** on the window pane?

- A** The air pressure inside the suction cup is greater than the air pressure outside it.
B The air pressure outside the suction cup is greater than the air pressure inside it.
C There is no air pressure outside the suction cup.
D The air pressure inside the suction cup is equal to the air pressure outside it.

Question 2 (7 marks)

(a) Why does a baby need to drink a lot of milk?

[1]

(b) **Diagram 5** shows the meals of three friends, **Kelly, Sam** and **Mira**.

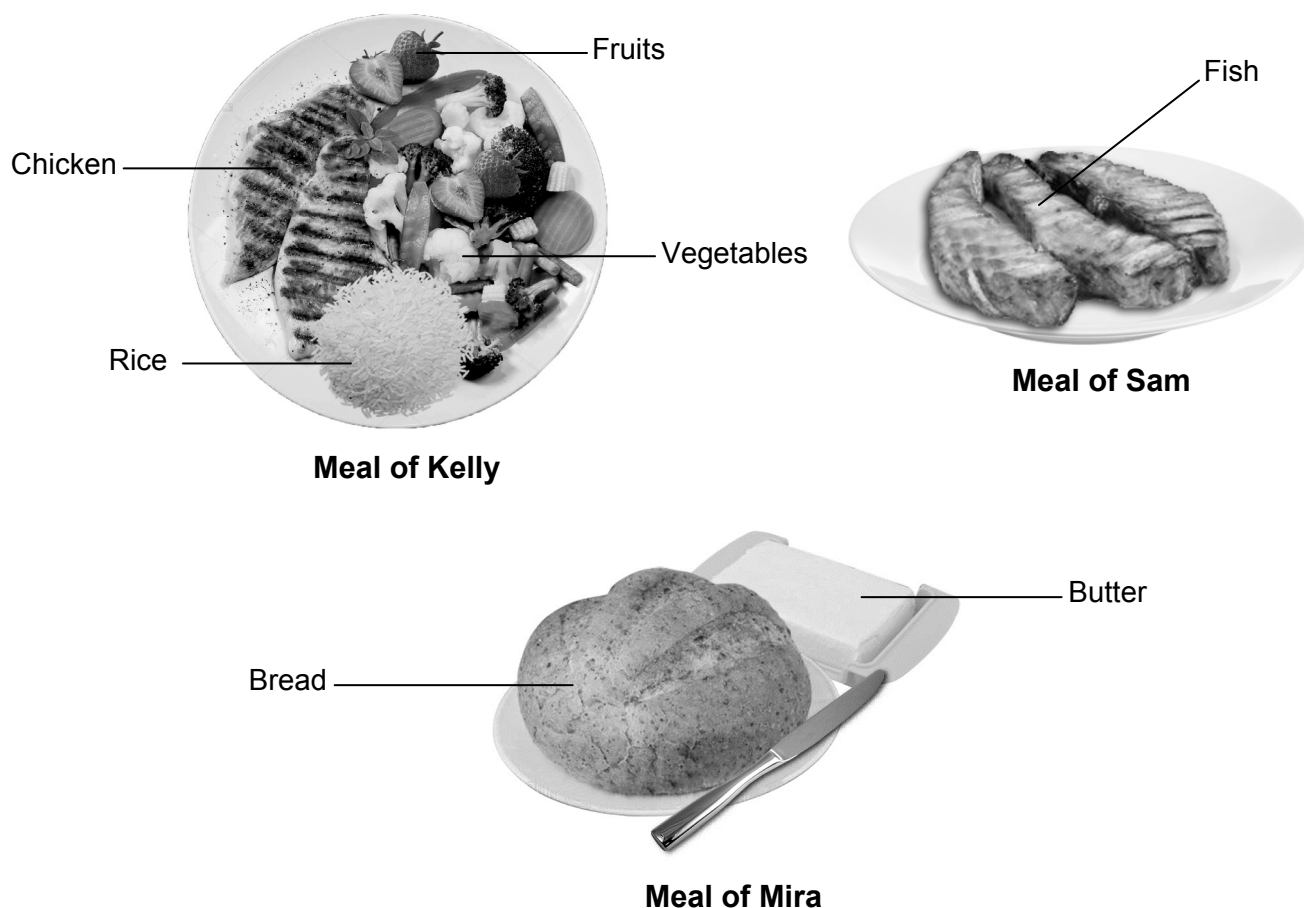


Diagram 5: Meals of Kelly, Sam and Mira

Fill in the table below by **ticking** the correct box to show the types of food or meal each friend is having.

	Food for growth only	Food for energy only	Food for health only	A balanced meal
Kelly				
Sam				
Mira				

[3]

(c) In the table below, classify the following animals according to their body covering:

Deer

Crocodile

Bat

Pigeon

Goldfish

Kestrel

Hairs	Scales	Feathers

[3]

Question 3 (11 marks)

(a) Fill in the blanks in the sentences below.

(i) The process by which plants manufacture their own food is called

_____.

(ii) During this process, plants take in _____ gas and

release _____ gas.

(iii) The green substance called _____, which is found in leaves,

absorbs sunlight.

[4]

- (b) Jay wants to find out how the amount of water balsam plants get over a period of 10 days affects their height.

1. He uses 3 similar balsam plants and plants each one in **Pot X**, **Pot Y** and **Pot Z**.
2. He waters each plant every day for 10 days.
3. The amount of water he pours into each pot every day is shown in the table below:

Pot	Amount of water every day
X	10 cL
Y	20 cL
Z	30 cL

4. All other conditions are the same for the 3 pots.
5. He observes the plants and measures their height every two days.

The table below shows his measurements of the height of the plants:

	Height of plant in:		
Day	Pot X	Pot Y	Pot Z
Day 0	10 cm	10 cm
Day 2	10 cm	11 cm	12 cm
Day 4	11 cm	13 cm	15 cm
Day 6	12 cm	16 cm	18 cm
Day 8	14 cm	18 cm	20 cm
Day 10	15 cm	20 cm	22 cm

- (i) 1. What should be the height of the plant in **Pot Z** on **Day 0**? _____ [1]

2. Explain your answer.

 _____ [1]

- (ii) What was the height of the plant in **Pot Y** on **Day 6**? _____ [1]

- (iii) What can Jay **conclude** from his experiment?

 _____ [2]

- (c) Plants are very important for the environment. Give two ways **how** deforestation affects the environment.

1. _____

2. _____
 _____ [2]

Question 4 (10 marks)

- (a) **Diagram 6** shows five objects made out of different materials.



Aluminium
window frame



Wooden spoon



Rubber tyre



Iron nail



Plastic
raincoat

Diagram 6: Objects made out of different materials

In the table below, give the property of the material which explains why it is used to make each of the objects given in **Diagram 6**. An example is given.

Object	Property of the material which makes it suitable to make this object
Aluminium window frame	Aluminium does not rust.
Wooden spoon	
Rubber tyre	
Iron nail	
Plastic raincoat	

[4]

- (b) Sara conducts an experiment to find out which material is most appropriate to use to filter water. She uses the following materials for her experiment:

- Cotton
- Silk
- Wool
- Nylon

Diagram 7 shows her set-up using one of the materials.

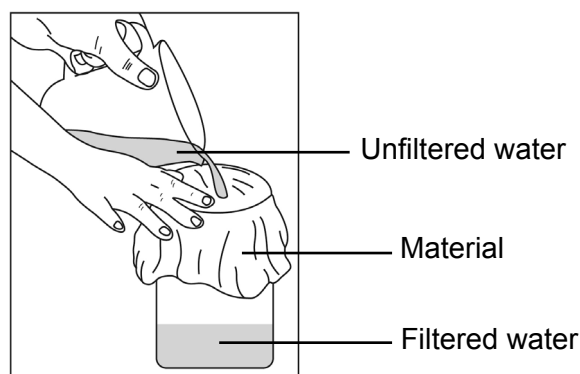
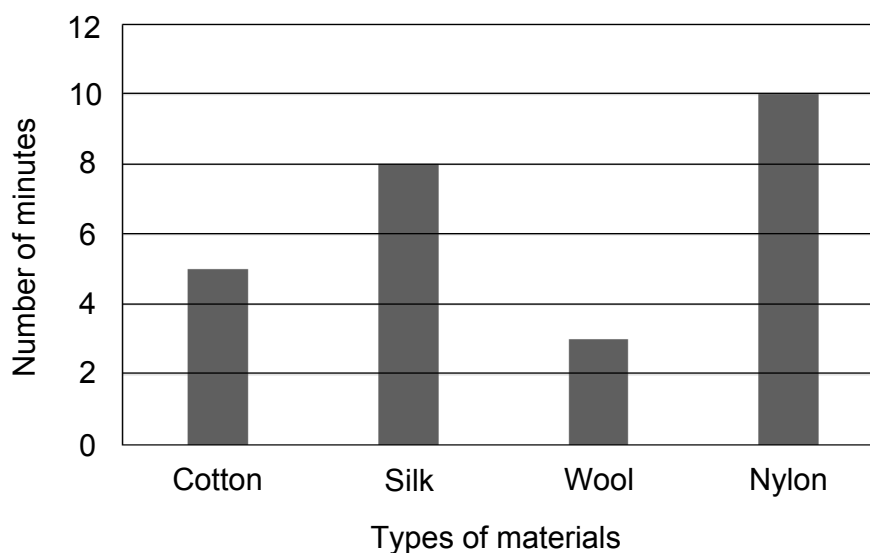


Diagram 7: Filtering water

She records the amount of time one litre of water takes to pass through the material completely. The bar chart below shows her recordings:



- (i) How many minutes does it take for one litre of water to pass through **cotton**?
_____ [1]
- (ii) The least appropriate material is the one which filters water the slowest. Which one of the materials is **least appropriate** to filter water?
_____ [1]

- (iii) Which property of the material you have given in **part (b)(ii)** makes it **least appropriate** to be used to filter water?

_____ [1]

- (c) In Mauritius, old water pipes are being replaced. One reason for this is because the water pipes are rusting.

- (i) Which metal was used to make these pipes?

_____ [1]

- (ii) What are the two conditions for rusting to take place?

_____ [1]

- (iii) Give one observation that tells you that rusting has occurred.

_____ [1]

Question 5 (9 marks)

- (a) **Diagram 8** shows the percentage of electricity produced from different sources of energy in Mauritius.

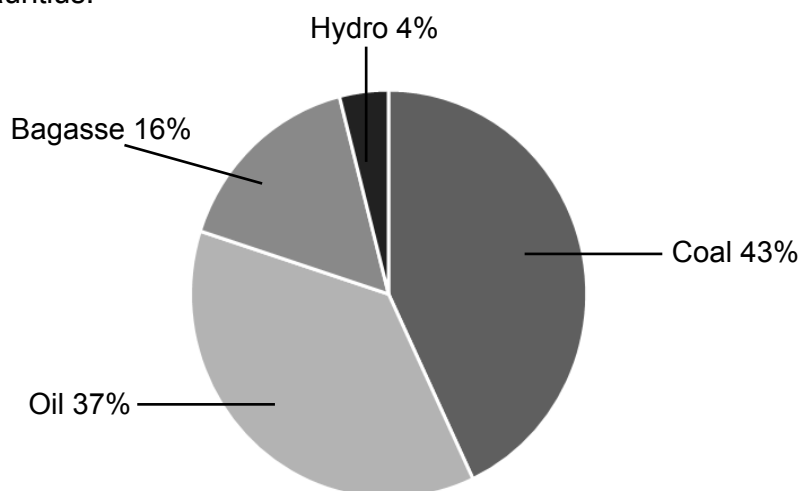


Diagram 8: Percentage of electricity produced from different sources

Based on the above diagram,

- (i) what is the **main** source of energy used to produce electricity in Mauritius?

_____ [1]

- (ii) which **renewable** source of energy is used **the most** to produce electricity in Mauritius? _____ [1]

- (iii) During periods of **drought**, the production of electricity using hydro energy decreases. Explain why.

_____ [2]

- (b) To help protect the planet, the Government of Mauritius encourages the use of green sources of energy. **Explain** how the use of **green sources** of energy can help to protect the planet.

_____ [2]

- (c) Another measure taken by the Government of Mauritius to protect the planet is the ban on the use of plastic bags. Give one way how **plastic bags** are **harmful** to the environment.

_____ [2]

- (d) Instead of throwing away plastic objects, they are turned into new useful objects.

What is the **name** given to this process? _____ [1]

Question 6 (8 marks)

- (a) **Diagram 9** shows school children in India. The Government of India had ordered that all schools be closed for a few days because of the highly polluted air.



Diagram 9: Poor air quality in India

- (i) What could have **caused** the air to become polluted?

_____ [1]

- (ii) Explain why it is important that children are protected from the poor air quality.

_____ [1]

- (b) **Diagram 10** shows two identical glass jars, **A** and **B**, containing two identical candles. At the beginning of the experiment, the following is found under each jar:

Under Jar A:

1. 1 burning candle
2. Air containing:
0.03% carbon dioxide and
21% oxygen.

Under Jar B:

1. 1 burning candle
2. Air containing:
1% carbon dioxide and
21% oxygen.



Diagram 10: Candles in jars containing different types of air

- (i) 1. Under which glass jar will the candle go out **first**?

[1]

2. Explain why.

_____ [1]

- (ii) 1. What will happen to the level of oxygen under the glass jars?

_____ [1]

2. Explain why.

_____ [1]

- (c) How do animals help in maintaining the composition of air in the atmosphere?

_____ [2]

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