

# Subject code No. P147/1)

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Grade 5 Modulars

March 2021

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### **INSTRUCTIONS TO CANDIDATES**

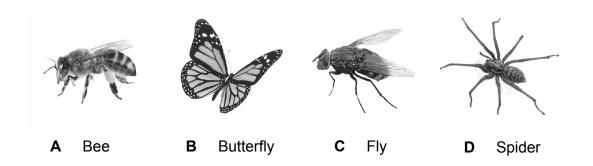
- 1. Check that this assessment booklet contains 6 questions printed on 14 pages numbered 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15.
- **2.** Write your Index Number on the assessment booklet in the space provided above.
- **3.** You should not use red, green or black ink in answering questions.
- **4.** Write all your answers clearly in the assessment booklet.
- **5.** Attempt all questions.

Question	Markin	g		Revision	n		Control	
Question	Marks	Sig	Ма	rks	Sig	Ма	rks	Sig
1								
2								
3								
4								
5								
6								
Total								
Sig (HoG)	HoG)							

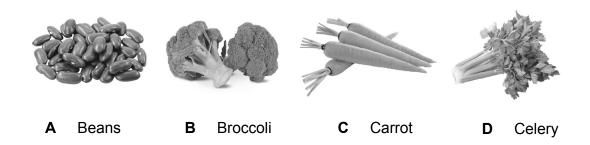
### Question 1 (5 marks)

### Circle the letter which shows the correct answer.

(a) Which one of the following animals lives in a **web**?



(b) Which one of the following food items is a **root** vegetable?

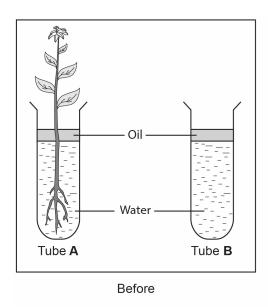


- (c) What is the **form** of energy that a swimming fish has?
  - **A** Heat
  - **B** Light
  - **C** Movement
  - **D** Sound

(d) What is the function of a **switch** in an electric circuit?

Marks

- A It protects against electric shocks.
- **B** It opens and closes the circuit.
- **C** It conducts electricity in the circuit.
- **D** It transforms electrical energy into light energy.
- (e) Tina carries out an experiment to investigate one of the functions of the root using the set-up shown in **Diagram 1**.



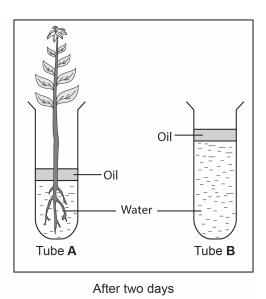


Diagram 1: Experiment to investigate one function of the root

After two days, she observes that the level of water in Tube **A** has decreased.

What can Tina conclude from her experiment?

**A** The root holds the plant.

C The root absorbs water.

**B** The root stores food.

**D** The root absorbs oil.

## Question 2 (10 marks)

Marks

(a) **Diagram 2** shows a simple electric circuit.

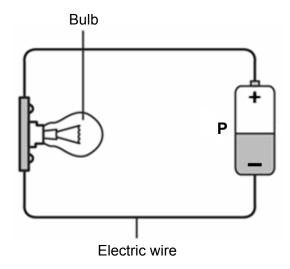


Diagram 2: A simple electric circuit

i)	Name	com	ponent	Ρ.
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\_\_\_\_\_\_[1]

ii) State the function of component P.

\_\_\_\_\_[1]

(b) i) Diagram 3 shows a simple electric circuit with a gap at Q.

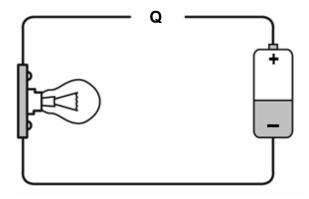


Diagram 3: An incomplete circuit

Yesh puts different objects at **Q** to close the gap.

Marks

By putting a tick ( $\checkmark$ ) in the appropriate box, complete the table below to indicate whether the bulb will light up when the different objects are placed at  $\mathbf{Q}$ .

An example is given.

Objects	Bulb lights up	Bulb does not light up
A plastic ruler		<b>√</b>
A wooden stick		
An aluminium spoon		
An iron nail		
A rubber band		

ı	4	4	ŀ
	•		•

ii)	How are objects which <b>do not</b> allow electricity to pass through them called?	
		[1]

(c) **Diagram 4** shows Nella and her mother in the kitchen.

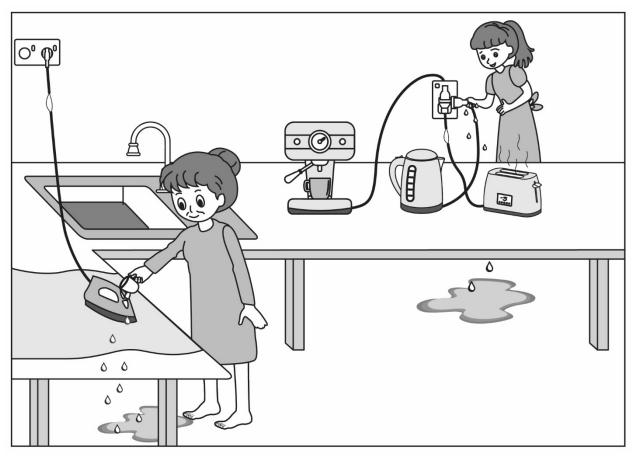


Diagram 4: Nella and her mother in the kitchen

Study **Diagram 4** carefully and answer the questions that follow.

i)	Give <b>two</b> examples of unsafe uses of electricity shown in <b>Diagram 4</b> .	
	1	_
	2	_ [2]
ii)	Give <b>one</b> precaution that Nella and her mother should take when using electrical appliances.	
		- _ [1]

(a) **Diagram 5** shows a jackfruit tree.

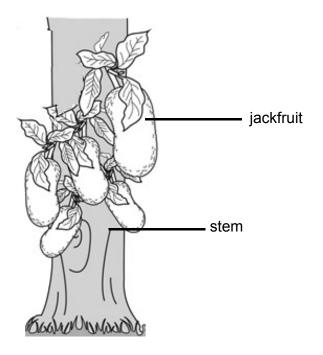


Diagram 5: A jackfruit tree

i)	Stems have different functions.	
	Give one function of the stem which is shown in <b>Diagram 5</b> .	
		[1]
ii)	Give another function of stems.	
		[1]
(b) i)	Which part of the jackfruit tree manufactures its food?	
		[1]
ii)	Why is food for the plant manufactured in that part of the tree?	
		[1]

(c) i)	What is soil erosion?	
		[1]
ii)	Give one way in which soil erosion affects the environment.	
		[1]

Marks

(d) i) **Diagram 6** shows animals grazing on a piece of land.

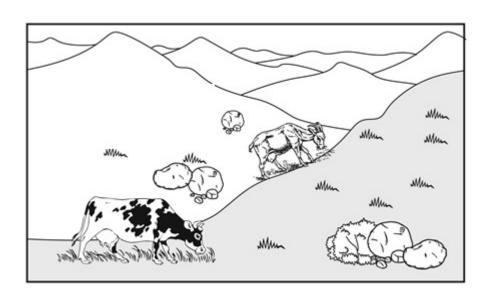


Diagram 6: Animals grazing land

	The piece of land shown in <b>Diagram 6</b> is likely to be affected by soil erosion.	
	Give a reason why.	
	[	[1]
ii)	What can be done to prevent soil erosion on the piece of land shown in <b>Diagram 6</b> ?	
		[1]

## Question 4 (10 marks)

Marks

(a) The table below indicates how water changes its state in three natural processes. It also provides a daily life example of these processes.

Study and complete the table.

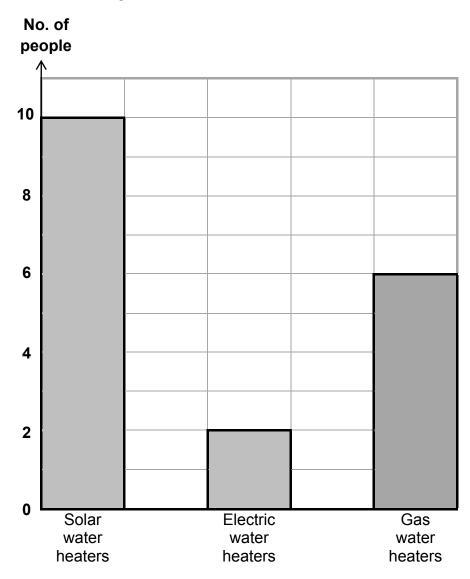
Process	Change of state	Daily life examples
1. Freezing	From tostate	Formation of glaciers
2	From <u>solid</u> to <u>liquid</u> state	Ice turning into water
3. <u>Condensation</u>	From state	

[4]

(b) Lina collects information about the types of water heaters used at home by a group of people.

Marks

She records her findings as shown below.



(i)	How many	people	use gas	water	heaters?
-----	----------	--------	---------	-------	----------

\_\_\_\_\_\_[1]

(ii) Which type of water heater is the  ${\it least}$  used by the people?

\_\_\_\_\_\_[1]

(iii) Give one **disadvantage** of using the water heater you mentioned in part **(b)** (ii).

\_\_\_\_\_[1]

iv)	Solar water heaters work better in summer than in winter.		Marks
	Explain why.		
		_ [1]	
v)	Other sources of energy could be used to heat water.		
	Give one such <b>source</b> of energy.		
		[1]	
vi)	State the <b>form</b> of energy obtained from the source you mentioned in part <b>(b) v)</b> .		
		[1]	

(a) **Diagram 7** shows the Kestrel.



**Diagram 7**: The Kestrel

The Kestrel is unique to the island of Mauritius.	
What type of bird is the Kestrel? Tick ( ✓) the correct box.	
Extinct Exotic Endemic	
	[1]
What is the name given to the <b>natural</b> place where animals live?	
	[1]
The Kestrel is a rare bird that can disappear if not protected.	
What is the term used to describe such rare animals?	
	[1]
Give a reason why the Kestrel has become rare.	
	- _ [1]
	What type of bird is the Kestrel? Tick (✔) the correct box.  Extinct  Exotic  Endemic  What is the name given to the <b>natural</b> place where animals live?  The Kestrel is a rare bird that can disappear if not protected.  What is the term used to describe such rare animals?

	1		
	2.	- _ [2]	
))	Diagram 8 shows a few features of a chameleon.		
	Water catching casque  Rotating eyes		
	Long, sticky tongue Feet with fused toes Curly tail		
	Diagram 8: Features of the chameleon		
i)	Give <b>one</b> feature of the chameleon shown in <b>Diagram 8</b> which enables it to:		
	1. grip onto branches:	[1]	
	2. catch its prey:	[1]	
ii)	Chameleons can change the colour of their skin.		
	Give one way how this feature helps the chameleon to survive in its environment.		
		_ _ [1]	
iii)	The chameleon is not adapted to live in a lake.		
,			

Marks

### Question 6 (7 marks)

Marks

(a) i) What is evaporation?

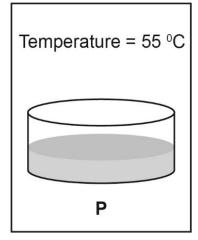
ii) Give two ways in which evaporation can be useful to humans.

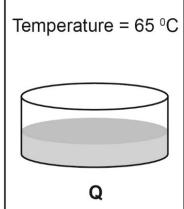
1.

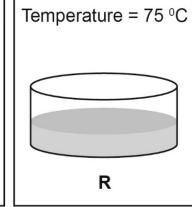
**2**. \_\_\_\_\_[2]

(b) Jim carries out an experiment to investigate the effect of temperature on evaporation.

He pours the same amount of water in three **identical** glass containers, **P**, **Q** and **R**. He keeps each container at different **temperatures** as shown in **Diagram 9**.







**Diagram 9:** Containers of water at differing temperatures

i) Why should the containers used in the experiment be identical?

\_\_\_\_\_

ii) Jim measures the time taken for the water in each container to evaporate **completely**. He records his observations as shown in the table below.

Marks

Container	Temperature	Time taken for water to evaporate completely
Р	55 °C	40 minutes
Q	65 °C	minutes
R	75 °C	18 minutes

	Suggest how long it could take for the water in container <b>Q</b> to evaporate completely	/.
	Tick (✓) the correct box.	
	15 minutes 26 minutes 42 minutes	<b>[41</b> ]
		[1]
iii)	Jim repeats his experiment using a fourth identical container, <b>S</b> . He keeps the container at a constant temperature of 85 °C.	
	Estimate the time it would take for the water in container <b>S</b> to evaporate completely	<b>′</b> .
	Tick ( ✓) the correct box.	
	12 minutes 20 minutes 28 minutes	
		[1]
iv)	What conclusion can Jim draw from his experiment?	
		- [1]

