

**GUYANA  
NATIONAL GRADE SIX ASSESSMENT**

**ANSWER BOOKLET**

**GUYANA  
NATIONAL GRADE SIX ASSESSMENT**

**ANSWER BOOKLET**

**FILL IN ALL THE INFORMATION THAT IS REQUIRED CLEARLY  
AND LEGIBLY IN CAPITAL LETTERS.**

TEST CODE 

0	9	6	3	0	0	2	0
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TEST CODE 

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SUBJECT SCIENCE – Paper 02

SUBJECT SCIENCE – Paper 02

WRITE YOUR CANDIDATE NUMBER HERE.  

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WRITE YOUR CANDIDATE NUMBER HERE.  

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**For CXC® Use Only**

Question Numbers	Profiles			Total	Initials
	K	C	A		
1					
2					
3					
4					
5					
6					
<b>Total</b>					

**WRITE THE NAME OF YOUR SCHOOL  
BELOW.**

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**WRITE YOUR FULL NAME BELOW.**

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**DATE OF BIRTH**

<i>Day</i>	<i>Month</i>	<i>Year</i>
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SEX { MALE   
} FEMALE

**DO NOT WRITE IN THIS SPACE.**

FOLDER NUMBER

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WRITE ON  
THIS PAGE**

GUYANA  
MINISTRY OF EDUCATION  
NATIONAL GRADE SIX ASSESSMENT

SCIENCE

Paper 02

MAY 3, 2023 (p.m.)

Reading Time: 10 minutes  
Writing Time: 60 minutes

**Read these instructions carefully before you attempt to answer the questions.**

1. Write your candidate number clearly on each page.
2. This paper contains **six** questions. You are required to answer **Question 1** and **three** others. **Each** question is worth **5** marks.

Note: You must answer **only four** questions. Be sure to answer **all** parts of the **four** questions fully.

3. You have 60 minutes of writing time and 10 minutes of reading time. Writing may begin during the reading time.
4. Write the answer for each question in the space provided in this booklet.
5. Answers **must** be written in complete sentences.
6. Ensure that your handwriting is clear.
7. If you have to erase, do so cleanly.
8. Look over your work when you have finished.
9. Do **not** take away **any** part of this booklet.

**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.**

Candidate number: .....

**Instruction: Question 1 is COMPULSORY. You MUST answer it.**

No.	TEST ITEMS
1.	<p>The diagram below shows a food web. Study it carefully and answer the questions that follow.</p> <div data-bbox="588 570 1019 932" data-label="Diagram"><pre>graph BT; Plant --&gt; Rabbit; Plant --&gt; Cow; Plant --&gt; Human; Rabbit --&gt; Jaguar; Cow --&gt; Jaguar; Human --&gt; Jaguar; Cow --&gt; Human;</pre></div> <p>(a) Which organism in the food web makes its own food?</p> <p>_____ (1 mark)</p> <p>(b) <b>From the food web</b>, state the name of the omnivore. _____ a herbivore. _____ (2 marks)</p> <p>(c) Describe the relationship between the rabbit and the jaguar.</p> <p>_____ _____ _____ _____ (1 mark)</p>

**DO NOT WRITE HERE**

**K**

**C**

**A**

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Candidate number: .....

No.	TEST ITEMS							
	<p>(d) Using three organisms from <b>the food web on page 4</b>, complete the food chain shown below.</p> <div data-bbox="550 538 1171 1193" style="text-align: center;"><pre>graph BT; A[ ] --&gt; B[Human]; B --&gt; C[ ]; C --&gt; D[ ]</pre></div> <p style="text-align: right;"><b>(1 mark)</b> <b>Total 5 marks</b></p>							
<b>DO NOT WRITE HERE</b>	<b>K (2)</b>		<b>C (2)</b>		<b>A (1)</b>		<b>TOTAL (5)</b>	

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Candidate number: .....

**Instruction: Answer any three questions from Questions 2 to 6.**

No.	TEST ITEMS									
2.	<p>(a) The diagram below shows the upper teeth in the human mouth. Study the diagram carefully and answer the questions that follow.</p> <div data-bbox="592 619 969 1029" data-label="Image"></div> <p>(i) Name the type of teeth labelled K and S in the diagram above.</p> <p>K _____</p> <p>S _____</p> <p style="text-align: right;"><b>(2 marks)</b></p>									
<table border="1" style="width: 100%;"><tr><td style="width: 33%;"><b>DO NOT WRITE HERE</b></td><td style="width: 10%;"><b>K</b></td><td style="width: 10%;"></td><td style="width: 10%;"><b>C</b></td><td style="width: 10%;"></td><td style="width: 10%;"><b>A</b></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td></tr></table>		<b>DO NOT WRITE HERE</b>	<b>K</b>		<b>C</b>		<b>A</b>			
<b>DO NOT WRITE HERE</b>	<b>K</b>		<b>C</b>		<b>A</b>					

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Candidate number: .....

No.	TEST ITEMS								
	<p>(ii) Explain how the molars in the human mouth aid in the process of digestion.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <p style="text-align: right;"><b>(1 mark)</b></p>								
<b>DO NOT WRITE HERE</b>	<table border="1"><tr><td data-bbox="539 1864 660 1919"><b>K</b></td><td data-bbox="660 1864 733 1919"></td><td data-bbox="733 1864 860 1919"><b>C</b></td><td data-bbox="860 1864 939 1919"></td><td data-bbox="939 1864 1066 1919"><b>A</b></td><td data-bbox="1066 1864 1139 1919"></td><td data-bbox="1139 1864 1339 1919"></td><td data-bbox="1339 1864 1411 1919"></td></tr></table>	<b>K</b>		<b>C</b>		<b>A</b>			
<b>K</b>		<b>C</b>		<b>A</b>					

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Candidate number: .....

No.	TEST ITEMS							
	<p>(b) Because of the role that the teeth play in digestion, it is important that they are kept healthy.</p> <p>Describe <b>two</b> practices that someone can follow to ensure that he/she takes good care of his/her teeth.</p> <p>1. _____ _____ _____ _____</p> <p>2. _____ _____ _____ _____</p> <p style="text-align: right;"><b>(2 marks)</b></p> <p style="text-align: right;"><b>Total 5 marks</b></p>							
<b>DO NOT WRITE HERE</b>	<b>K (2)</b>		<b>C (2)</b>		<b>A (1)</b>		<b>TOTAL (5)</b>	

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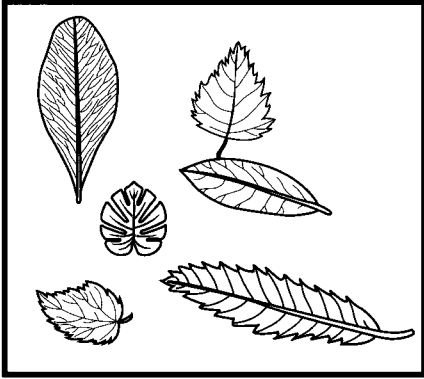
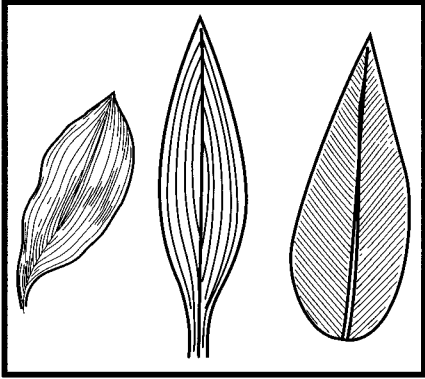


Candidate number: .....

No.	TEST ITEMS									
3.	<p>(a) Complete the sentences below to show the function of the leaves and roots of a plant.</p> <p>(i) The tree uses its leaves to _____ _____</p> <p>(ii) The tree has roots to _____ _____</p> <p style="text-align: right;"><b>(2 marks)</b></p> <p>(b) Why does a tree need to produce seeds?</p> <p>_____ _____ _____ _____ _____</p> <p style="text-align: right;"><b>(1 mark)</b></p>									
<b>DO NOT WRITE HERE</b>	<table border="1"><tr><td data-bbox="539 1862 661 1917">K</td><td data-bbox="661 1862 738 1917"></td><td data-bbox="738 1862 862 1917">C</td><td data-bbox="862 1862 940 1917"></td><td data-bbox="940 1862 1066 1917">A</td><td data-bbox="1066 1862 1143 1917"></td><td data-bbox="1143 1862 1266 1917"></td><td data-bbox="1266 1862 1343 1917"></td><td data-bbox="1343 1862 1412 1917"></td></tr></table>	K		C		A				
K		C		A						

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Candidate number: .....

No.	TEST ITEMS							
	<p data-bbox="247 421 1404 495">Ella is looking at some leaves. She places them into two groups, A and B, as shown below.</p> <div data-bbox="326 555 746 932"></div> <p data-bbox="479 953 597 985"><b>Group A</b></p> <div data-bbox="805 555 1226 932"></div> <p data-bbox="958 953 1075 985"><b>Group B</b></p> <p data-bbox="247 1034 1420 1070">(c) What characteristic of the leaves did Ella <b>most</b> likely use to group them?</p> <p data-bbox="341 1134 1404 1140">_____</p> <p data-bbox="341 1204 1404 1210">_____</p> <p data-bbox="1271 1215 1404 1247"><b>(1 mark)</b></p>							
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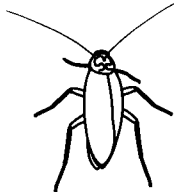
No.	TEST ITEMS							
	<p>(d) What <b>other</b> characteristics would plants in Group A have?</p> <p>Tick (✓) the box(es) that applies/apply.</p> <p>Fibrous root <input data-bbox="911 570 986 649" type="checkbox"/></p> <p>Taproot <input data-bbox="911 676 986 755" type="checkbox"/></p> <p>Flowers with 6 petals <input data-bbox="911 783 986 861" type="checkbox"/></p> <p>Seeds with two cotyledons <input data-bbox="911 889 986 968" type="checkbox"/></p> <p>Floral parts in multiples of 4 or 5 <input data-bbox="911 995 986 1074" type="checkbox"/></p> <p style="text-align: right;"><b>(1 mark)</b></p> <p style="text-align: right;"><b>Total 5 marks</b></p>							
<b>DO NOT WRITE HERE</b>	<b>K (2)</b>		<b>C (2)</b>		<b>A (1)</b>		<b>TOTAL (5)</b>	

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Candidate number: .....

No. TEST ITEMS

4. Study carefully the diagrams of the six animals shown below and answer the questions that follow.



Cockroach



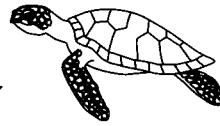
Housefly



Fish



Crab



Turtle



Frog

(a) To which group of arthropods does the crab belong?

\_\_\_\_\_

\_\_\_\_\_

(1 mark)

(b) Classify the six animals shown above into vertebrates and invertebrates. Write the names of the animals in the table below.

Vertebrates	Invertebrates
_____	_____
_____	_____
_____	_____
_____	_____

(2 marks)

DO NOT WRITE HERE      K      C      A

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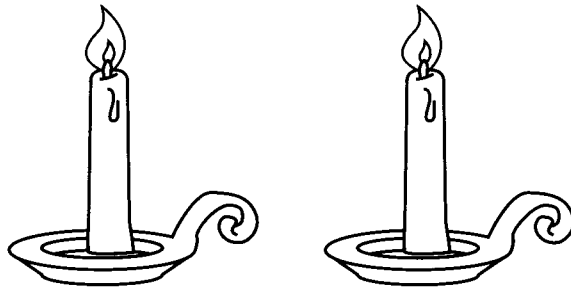
Candidate number: .....

No.	TEST ITEMS									
	<p>(c) Complete the table below to show the comparison between a housefly and a grasshopper.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 35%; text-align: center;">Grasshopper</th><th style="width: 35%; text-align: center;">Housefly</th></tr></thead><tbody><tr><td style="text-align: center; vertical-align: middle;"><b>Name of Stages in Life Cycle</b></td><td style="text-align: center;"><hr/><hr/><hr/><hr/></td><td style="text-align: center;"><hr/><hr/><hr/><hr/></td></tr><tr><td style="text-align: center; vertical-align: middle;"><b>Type of Metamorphosis</b></td><td style="text-align: center;"><hr/></td><td style="text-align: center;"><hr/></td></tr></tbody></table> <p style="text-align: right; margin-right: 20px;"><b>(2 marks)</b></p> <p style="text-align: right; margin-right: 20px;"><b>Total 5 marks</b></p>		Grasshopper	Housefly	<b>Name of Stages in Life Cycle</b>	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/>	<b>Type of Metamorphosis</b>	<hr/>	<hr/>
	Grasshopper	Housefly								
<b>Name of Stages in Life Cycle</b>	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/>								
<b>Type of Metamorphosis</b>	<hr/>	<hr/>								
<b>DO NOT WRITE HERE</b>	<b>K (2)</b>	<b>C (2)</b>	<b>A (1)</b>	<b>TOTAL (5)</b>						

Candidate number: .....

No.	TEST ITEMS
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5. (a) Mrs Sam burnt some candles similar to those shown in the diagrams below.



**Candles**

When candles burn, both reversible and non-reversible changes occur. Two of these changes are listed in the table below.

(i) Complete the table below to show the type of change that occurs in each case. Write R for reversible and N for non-reversible.

Changes	Type of Change
Melting of candle wax	
Burning of the wick of the candle to produce energy	

**(2 marks)**

(ii) Explain **one** reason for your answer given in (i) above.

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**(1 mark)**

<b>DO NOT WRITE HERE</b>	<b>K</b>		<b>C</b>		<b>A</b>			
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Candidate number: .....

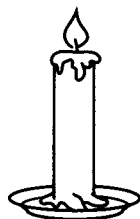
No.	TEST ITEMS										
(b)	<p style="text-align: center;"><b>Water is Life! Save it !!!</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><b>Reduce Reuse Recycle</b></p> </div> <div style="text-align: center;">  </div> </div> <p>The table below consists of four water conserving activities done around the home. Determine into which of the <b>three</b> categories; reduce, reuse or recycle, each activity will fall. Write your answers in the table.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="width: 70%; text-align: center;">Water Conservation Activity</th> <th style="width: 30%; text-align: center;">Category</th> </tr> </thead> <tbody> <tr> <td>Using a pail of water to wash the car instead of the hose.</td> <td style="height: 40px;"></td> </tr> <tr> <td>Watering plants with the water that was used to wash rice and vegetables.</td> <td style="height: 40px;"></td> </tr> <tr> <td>Boiling water collected from rinsing dishes so that it can be used once more.</td> <td style="height: 40px;"></td> </tr> <tr> <td>Using wastewater from the washing machine to wash the concrete.</td> <td style="height: 40px;"></td> </tr> </tbody> </table> <p style="text-align: right; margin-top: 10px;"><b>(2 marks)</b></p> <p style="text-align: right; margin-top: 10px;"><b>Total 5 marks</b></p>	Water Conservation Activity	Category	Using a pail of water to wash the car instead of the hose.		Watering plants with the water that was used to wash rice and vegetables.		Boiling water collected from rinsing dishes so that it can be used once more.		Using wastewater from the washing machine to wash the concrete.	
Water Conservation Activity	Category										
Using a pail of water to wash the car instead of the hose.											
Watering plants with the water that was used to wash rice and vegetables.											
Boiling water collected from rinsing dishes so that it can be used once more.											
Using wastewater from the washing machine to wash the concrete.											
DO NOT WRITE HERE	K (2)										
C (2)	A (1)										
TOTAL (5)											

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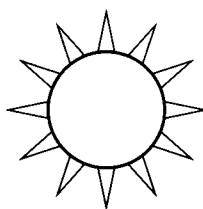
Candidate number: .....

No.	TEST ITEMS
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6. (a) The diagrams below show three energy sources. Study the diagrams carefully and answer the questions that follow.



**Burning candle**



**Sun**



**Torchlight**

(i) Name **two** forms of energy produced by **all** three of the sources shown in the diagrams above.

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**(2 marks)**

(ii) In which of the sources above is electrical energy converted into another form of energy in order for that source to do its work?

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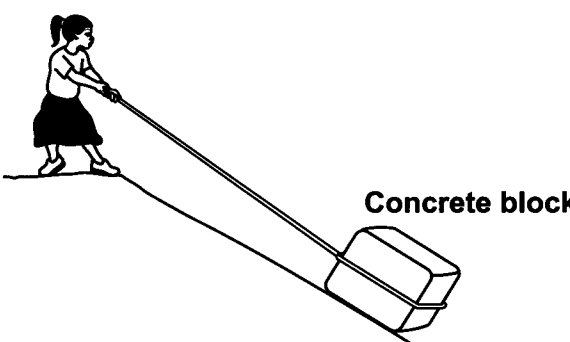
**(1 mark)**

<b>DO NOT WRITE HERE</b>	<b>K</b>		<b>C</b>		<b>A</b>		
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Candidate number: .....

No.	TEST ITEMS
	<p>(b) The diagram below shows Dianne pulling a concrete block up an inclined surface.</p>  <p>Concrete block</p> <p>One of the forces affecting Dianne's ability to pull the block up the inclined surface is friction. Describe <b>two</b> things that Dianne can do to decrease friction, and make her task easier.</p> <p>1. _____ _____</p> <p>2. _____ _____</p> <p style="text-align: right;"><b>(2 marks)</b></p> <p style="text-align: right;"><b>Total 5 marks</b></p>
<b>DO NOT WRITE HERE</b>	<b>K (2)</b>
	<b>C (2)</b>
	<b>A (1)</b>
	<b>TOTAL (5)</b>

**END OF TEST**

**IF YOU FINISH BEFORE TIME IS UP, CHECK YOUR WORK ON THIS TEST.**

**DO NOT  
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GUYANA  
MINISTRY OF EDUCATION  
NATIONAL GRADE SIX ASSESSMENT

SCIENCE

Paper 01

MAY 3, 2023 (p.m.)

1 hour and 10 minutes

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This test has 40 questions. You have 1 hour and 10 minutes to answer them.
2. Each question has **four** suggested answers: (A), (B), (C) and (D). Read each question carefully and then choose the correct answer.
3. On your answer sheet, find the number that matches the question you intend to answer.
4. Shade the circle with the letter, (A), (B), (C) or (D), that matches your answer for each question.

Sample Question

Carbon dioxide is a

- (A) mixture.
- (B) liquid.
- (C) solid.
- (D) gas.

Sample Answer



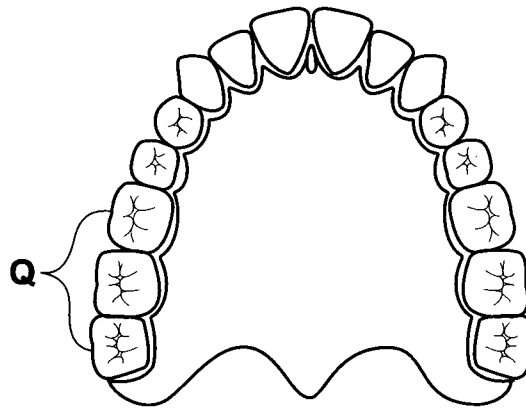
The correct answer is “gas”, so (D) has been shaded.

5. If you want to change your answer, erase it completely before you fill in your new choice.
6. When the supervisor tells you to begin, turn the page and work as quickly and as carefully as you can.
7. If you try a question and find that you cannot answer it, leave it and go on to the next one. You may return to that question later.
8. You must **not** use calculators for this examination. Rough work may be done in this booklet.

**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.**

1. The six essential food nutrients required by the human body are
- (A) carbohydrates, proteins, fats, vitamins, minerals, and water.
  - (B) carbohydrates, lipids, enzymes, vitamins, minerals, and water.
  - (C) carbohydrates, fibre, roughages, vitamins, minerals, and water.
  - (D) carbohydrates, proteins, antioxidants, vitamins, minerals, and water.

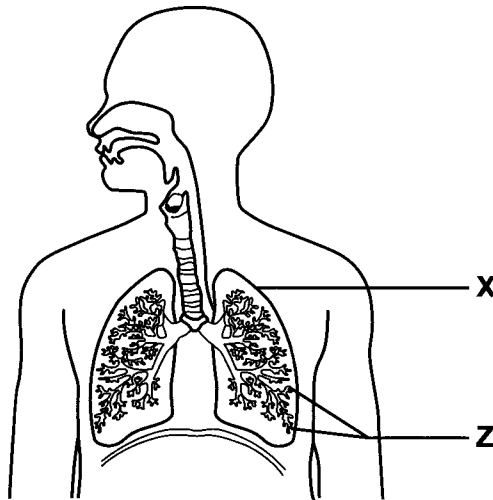
Question 2 refers to the following diagram which shows the teeth in the upper section of the human mouth.



2. The type of teeth labelled **Q** in the diagram above are used for
- (A) cutting.
  - (B) tearing.
  - (C) ripping.
  - (D) grinding.

GO ON TO THE NEXT PAGE

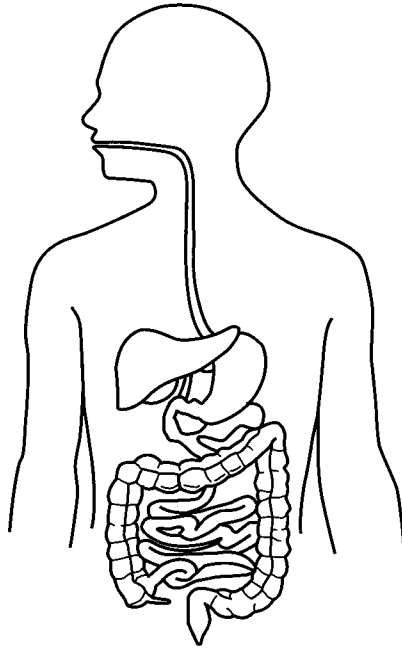
**Questions 3 and 4** refer to the following diagram which shows the main parts of a human body system.



3. The waste products of the organ labelled X in the diagram above are removed from the body through the
- (A) skin.
  - (B) liver.
  - (C) trachea.
  - (D) kidneys.
4. The function of the part labelled Z in the diagram above is to facilitate the
- (A) transport of food.
  - (B) exchange of gases.
  - (C) absorption of nutrients.
  - (D) removal of waste materials.

GO ON TO THE NEXT PAGE

Question 5 refers to the following diagram which shows a human body system.



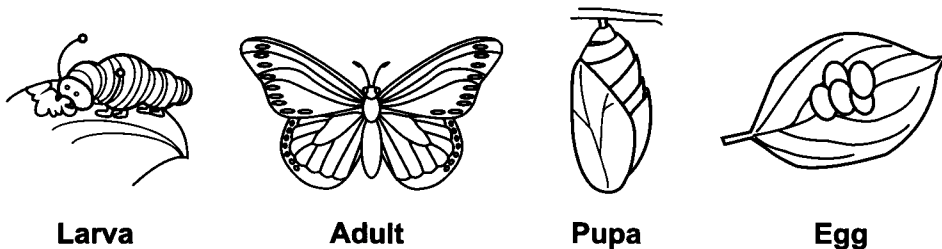
5. Which of the following functions is **not** carried out by the body system shown in the diagram above?
- (A) Eliminates undigested material from the body
  - (B) Physically breaks down food particles to be absorbed
  - (C) Pumps blood throughout the body to transport nutrients
  - (D) Transfers nutrients from the digestive tract into the blood
6. Which of the following statements **best** describes the relationship between the intensity of physical exercise and one's breathing rate?
- (A) As the duration of physical exercise increases, one's breathing rate decreases.
  - (B) As the intensity of one's exercise increases, one's breathing rate also increases.
  - (C) One's breathing rate remains the same as the intensity of physical exercise changes.
  - (D) One's breathing rate goes up and down as the intensity of physical exercise increases.

GO ON TO THE NEXT PAGE

7. An organism that only eats meat for its energy is called

- (A) a producer.
- (B) a herbivore.
- (C) a carnivore.
- (D) an omnivore.

Question 8 refers to the following diagram which shows the stages in the metamorphosis of a butterfly.



8. The correct order of the four stages of complete metamorphosis of the butterfly is

- (A) egg → larva → pupa → adult.
- (B) pupa → egg → larva → adult.
- (C) larva → adult → pupa → egg.
- (D) egg → pupa → larva → adult.

Question 9 refers to the following information about an animal.

Tim was playing in his backyard and noticed a tiny animal with six legs and three main body parts, lying on a leaf. He tried to catch it but it flew away.

9. To which class of invertebrates does this tiny animal **most** likely belong?

- (A) Insects
- (B) Molluscs
- (C) Arachnids
- (D) Crustaceans

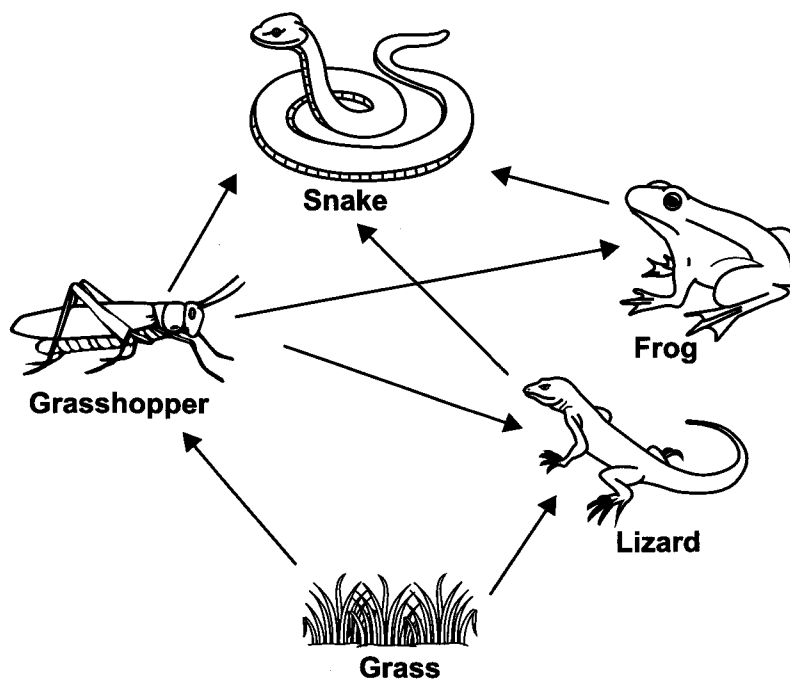
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Question 10 refers to the following table which shows how Joanne grouped a set of organisms.

Group A	Group B
Butterfly	Grasshopper
Housefly	Cockroach
Mosquito	Spider
Beetle	Dragonfly

10. Which of the following categories were **most** likely used by Joanne to group the organisms?
- (A) Mammals and non-mammals
  - (B) Vertebrates and invertebrates
  - (C) Omnivorous and herbivorous animals around the home
  - (D) Insects that undergo complete and incomplete metamorphosis

Questions 11–13 refer to the following diagram which shows a food web.



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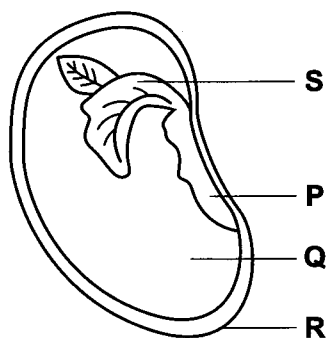


11. Which of the organisms in the food web is an omnivore?
- (A) Frog
  - (B) Snake
  - (C) Lizard
  - (D) Grasshopper
12. Which organism (s) in the food web is/are **both** a predator and a prey?
- (A) Lizard only
  - (B) Lizard and frog
  - (C) Snake and frog
  - (D) Grasshopper only
13. What will **most** likely happen if the number of frogs in the food web shown **on page 6** is decreased?
- I. The number of grasshoppers may increase.
  - II. The snakes will eat more grasshoppers and lizards.
  - III. The lizards will have to find an alternative food source.
- (A) I and II only
  - (B) I and III only
  - (C) II and III only
  - (D) I, II and III
14. The water needed for photosynthesis enters the leaves through the
- (A) apex and root.
  - (B) root and stem.
  - (C) margin and stem.
  - (D) petiole and cuticle.

15. Leaves are very important to a plant because they

- (A) attract pollinators.
- (B) absorb water for the plant.
- (C) carry out germination in seeds.
- (D) collect sunlight for food production.

Questions 16 and 17 refer to the following diagram which shows a bean seed.



16. The part of the seed labelled R is the

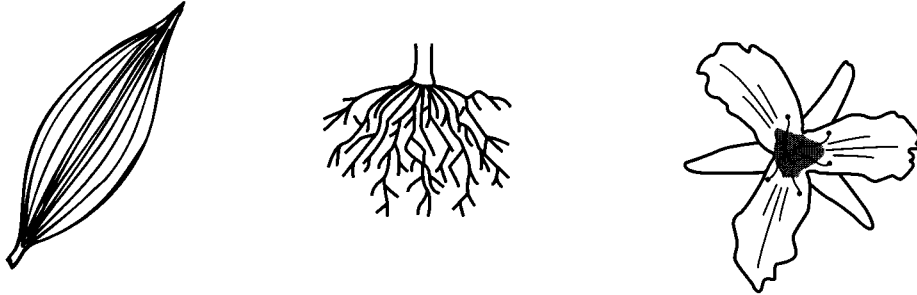
- (A) radicle.
- (B) plumule.
- (C) cotyledon.
- (D) seed coat.

17. Which of the following parts labelled P, Q, R or S, forms organs which are responsible for photosynthesis?

- (A) P
- (B) S
- (C) Q
- (D) R

GO ON TO THE NEXT PAGE

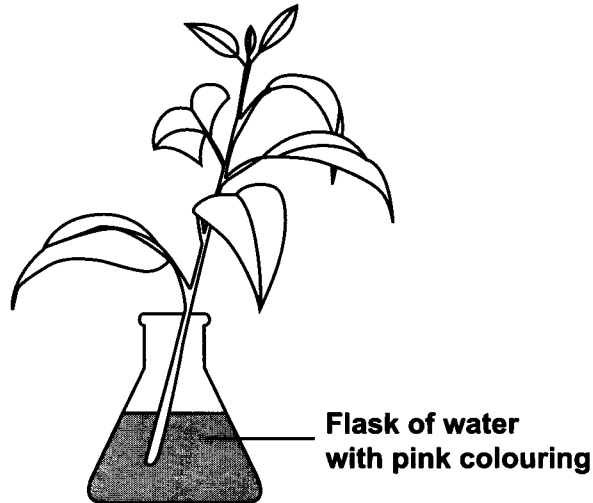
Question 18 refers to the following diagram which shows similar structures of a plant that Mark has.



18. The seeds from Mark's plant would **most** likely be placed in which of the following groups?

	<b>Group of Plants/Seeds</b>
(A)	Guava, rice, awara, pigeon peas
(B)	Red beans, peanut, corn, bamboo
(C)	Corn, rice, palm, sugarcane
(D)	Bora, mango, peanut, tomato

19. Lisa places a plant into a flask of water in which some pink colouring is added, as shown in the diagram below.



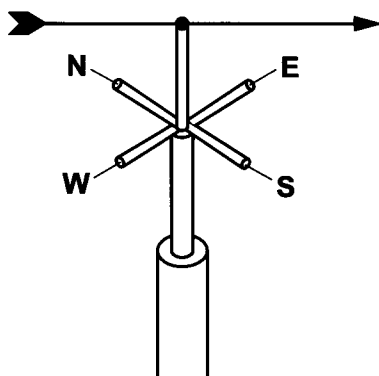
- A few hours later, Lisa observes that the flowers turned from white to pink. Which of the following statements explains her observation?
- (A) The leaves make food for the plant.
  - (B) The roots help the plant to stay upright.
  - (C) The stem joins the roots to the rest of the plant.
  - (D) The stem carries water from the roots to the rest of the plant.
20. The release of harmful waste into the environment is known as
- (A) pollution.
  - (B) recycling.
  - (C) conservation.
  - (D) waste management.
21. Which of the following animals is **most** likely to be found in the desert habitat?
- (A) Fox
  - (B) Shark
  - (C) Camel
  - (D) Squirrel

GO ON TO THE NEXT PAGE

22. Which of the following actions is an example of reusing?

- (A) Using fewer napkins when you eat
- (B) Using less water when you brush your teeth
- (C) Taking metal cans back to a recycling centre
- (D) Washing plastic bags after use to store more food

Question 23 refers to the following diagram which shows a weather instrument.



23. The weather instrument shown above measures wind

- (A) speed.
- (B) direction.
- (C) capacity.
- (D) temperature.

24. When rocks break down due to the effects of the sun, water and wind, this is referred to as

- (A) contraction.
- (B) weathering.
- (C) expansion.
- (D) flooding.

GO ON TO THE NEXT PAGE

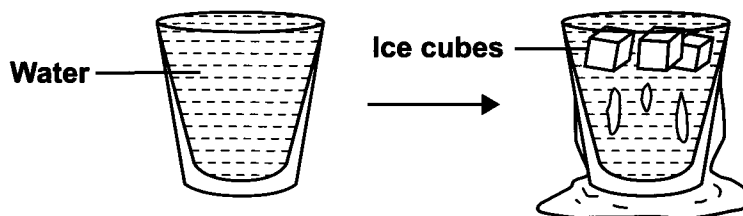
25. Soil erosion can be prevented by
- (A) overgrazing.
  - (B) deforestation.
  - (C) replanting trees.
  - (D) the removal of vegetation.
26. Which of the following activities contribute **greatly** to the effects of climate change?
- I. Farming
  - II. Deforestation
  - III. Use of fossil fuel
- (A) I and II only
  - (B) I and III only
  - (C) II and III only
  - (D) I, II and III
27. A solid is a state of matter that has
- (A) an indefinite volume and an indefinite shape.
  - (B) an indefinite volume and a definite shape.
  - (C) a definite volume and an indefinite shape.
  - (D) a definite volume and a definite shape.
28. Which of the following substances is soluble in water?
- (A) Salt
  - (B) Sand
  - (C) Flour
  - (D) Stones

29. Which of the following changes are reversible?

- I. Roasting chicken on a grill.
- II. Water freezing and turning into ice.
- III. Chocolate melting when left in the sun.

- (A) I and II only
- (B) I and III only
- (C) II and III only
- (D) I, II and III

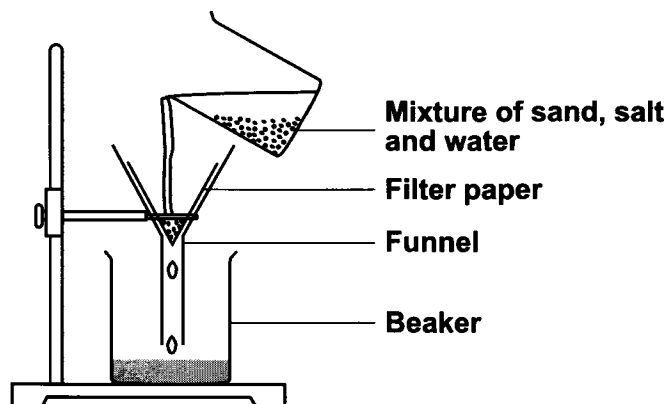
30. Jessie completely filled a glass with water. When he placed some ice cubes into the glass of water, it was observed that the water overflowed, as shown in the diagram below.



Which of the following statements **best** explains Jessie's observation?

- (A) Ice takes up space.
- (B) Ice has a definite shape.
- (C) Water has no definite volume.
- (D) Water exists in three different states.

Questions **31** and **32** refer to the following diagram which shows a separation technique.



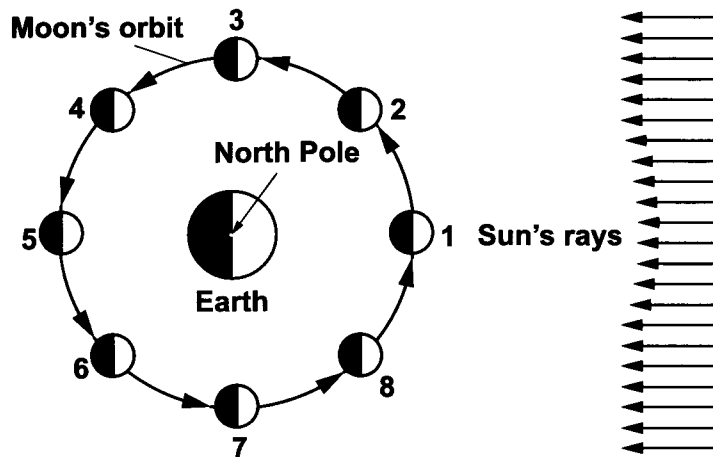
- 31.** Leon poured the mixture of sand, salt and water into the funnel containing the filter paper. Which of the following substances would be collected in the beaker?
- (A) Water only
  - (B) Salt and water only
  - (C) Sand and water only
  - (D) Sand, salt and water
- 32.** Which of the following methods can be used to separate the sand and salt from the mixture?
- (A) Filtration and evaporation
  - (B) Distillation and evaporation
  - (C) Filtration and condensation
  - (D) Condensation and distillation



33. The movement of the Earth on its axis is called

- (A) phases.
- (B) rotation.
- (C) flotation.
- (D) revolution.

Question 34 refers to the following diagram which shows the phases of the moon.



34. What phase of the moon would be visible from Earth when the moon is at Position 3?

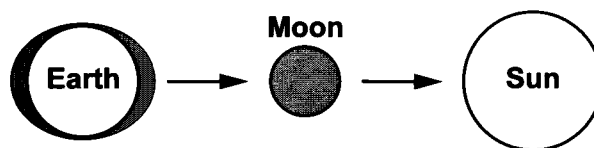
- (A) Full moon
- (B) New moon
- (C) First quarter
- (D) Third quarter

GO ON TO THE NEXT PAGE

35. Which moon phases are associated with the **highest** tides?

- (A) New and full
- (B) Full and third quarter
- (C) New and first quarter
- (D) First quarter and third quarter

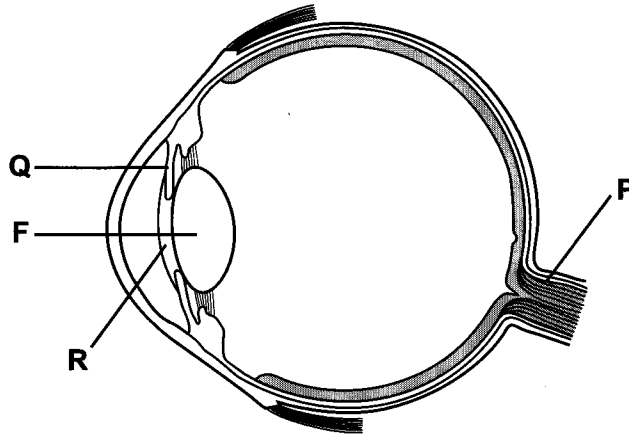
Question 36 refers to the following diagram which shows the phase of the moon on a particular night during the month of August.



36. What type of tide will be created based on the arrangement of the earth-moon-sun shown above?

- (A) Low
- (B) High
- (C) Neap
- (D) Spring

Question 37 refers to the following diagram which shows a representation of the human eye.



37. Which part of the eye transmits sensory information from the eye to the brain?

- (A) F
- (B) P
- (C) Q
- (D) R

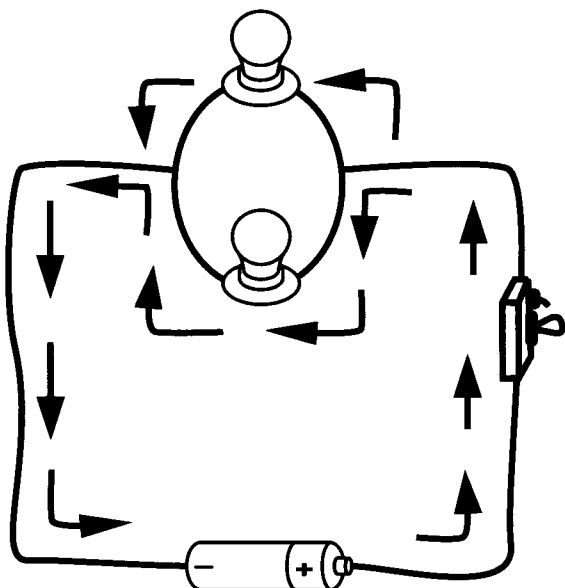
38. The **main** reason why electric wires are coated in plastic or rubber is

- (A) for decoration.
- (B) because it is cheaper.
- (C) to prevent damage to the wire.
- (D) to prevent someone from getting shocked.

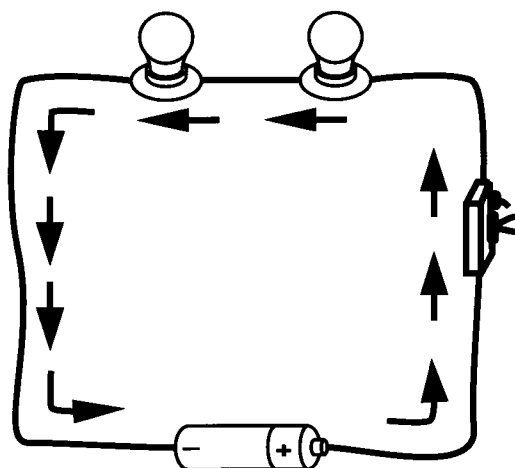
GO ON TO THE NEXT PAGE

Question 39 refers to the following diagram which shows two simple circuits, containing identical bulbs.

The arrows indicate the direction in which the current flows.



**Circuit A**



**Circuit B**

39. Which of the following statements about the two circuits is **true**?
- (A) Circuit A is connected in series while Circuit B is connected in parallel.
  - (B) Circuit A forms a single loop while Circuit B forms more than one loop.
  - (C) More current flows through each bulb in Circuit A so the bulbs will light brighter.
  - (D) In Circuit A, current flows in multiple pathways while for Circuit B, current flows in one pathway.

GO ON TO THE NEXT PAGE

- 40.** A toy car is released with the same initial speed on four different surfaces: a muddy floor, polished surface, cement, and brick. After releasing the car, it will travel the farthest on the
- (A) polished surface.
  - (B) cement surface.
  - (C) muddy surface.
  - (D) brick surface.

**END OF TEST**

**IF YOU FINISH BEFORE TIME IS UP, CHECK YOUR WORK ON THIS TEST.**

**Prepared by**

**CARIBBEAN EXAMINATIONS COUNCIL**