



ORCHID PARK SECONDARY SCHOOL

End-of-Year Examination 2024

CANDIDATE NAME

CLASS

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INDEX NUMBER

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LOWER SECONDARY SCIENCE

Booklet A

4 October 2024

Secondary 2 (G3)

2 hours

Setter: Mr Naufal

(for booklets A, B and C)

100 Marks

Additional Materials: Multiple Choice Answer Sheet

READ THESE INSTRUCTIONS FIRST

Write in soft pencil.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Write your name and index number the Answer Sheet in the spaces provided.

There are **thirty** questions on this paper. Answer **all** questions. For each question there are four possible answers **A, B, C** and **D**.

Choose the **one** you consider correct and record your choice in **soft pencil** on the separate Answer Sheet.

Read the instructions on the Answer Sheet very carefully.

Each correct answer will score one mark. A mark will not be deducted for a wrong answer.

Any rough working should be done on this booklet.

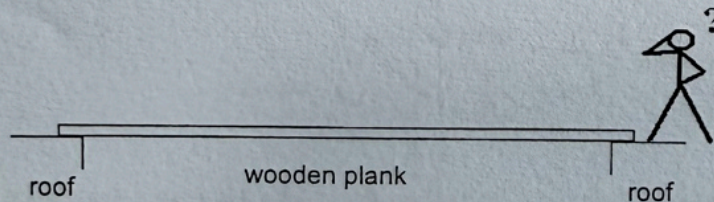
The use of a scientific calculator is expected, where appropriate.

Section A [30 marks]

- 1 When a force is applied to a body, several effects are possible.

Which effect cannot occur?

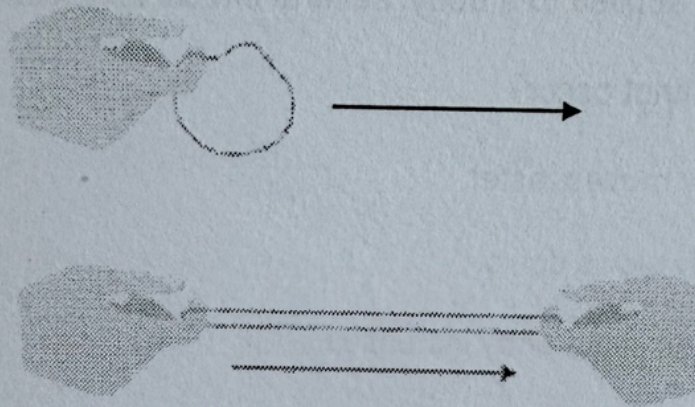
- A The body moves faster.
 - B The body slows down.
 - C The mass of the body increases.
 - D The shape of the body is changed.
- 2 A rock on the Mars is brought to Earth where the gravity is stronger.
- What will happen to the mass and weight of the rock when it is on Earth?
- A The rock will have different mass and different weight on Earth.
 - B The rock will have different mass and the same weight on Earth.
 - C The rock will have the same mass and different weight on Earth.
 - D The rock will have the same mass and the same weight on Earth.
- 3 A man wants to cross over from the roof of one building to another using a wooden plank.



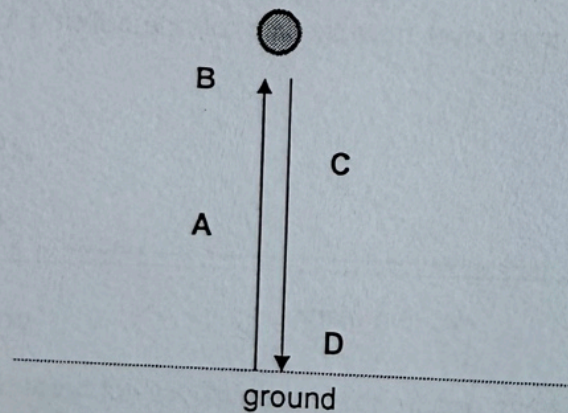
What should he do to ensure that the plank will not break while he is crossing it?

- A run across as quickly as possible
- B tip-toe all the way across slowly
- C walk sideways slowly
- D crawl across slowly

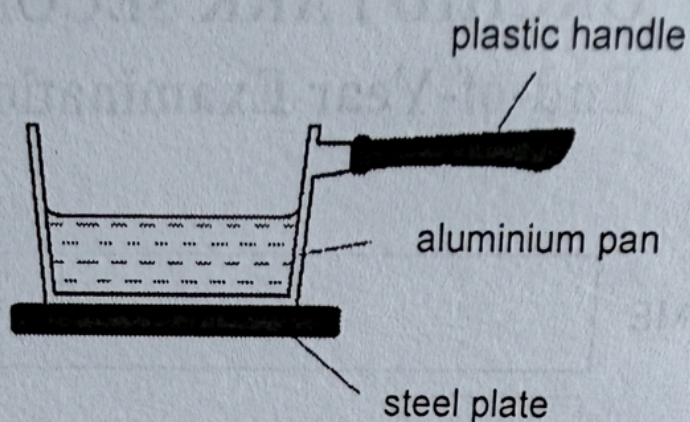
- 4 Which energy conversion happens when a rubber band is stretched as shown below?



- A chemical potential energy $\rightarrow$ kinetic energy
B elastic potential energy $\rightarrow$ kinetic energy
C kinetic energy $\rightarrow$ elastic potential energy
D kinetic energy $\rightarrow$ gravitational potential energy
- 5 The diagram shows a ball thrown from the ground.
At which point does the ball have the highest kinetic energy?



- 6 A saucepan is used to heat up some water.



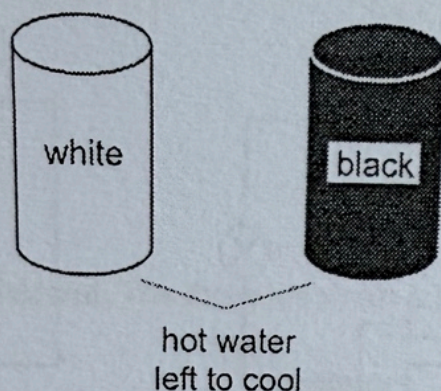
	heat is transferred through the aluminium pan by	heat is transferred through the water by
A	conduction	conduction
B	conduction	convection
C	radiation	radiation
D	radiation	convection

- 7 When we brush our teeth, a substance X found in the toothpaste reacts with the acid on our teeth, preventing tooth decay. A salt and water are formed in the process.

What could be X and what is the name of reaction called?

	X	name of reaction
A	potassium fluoride	neutralisation
B	sodium hydroxide	neutralisation
C	potassium fluoride	oxidation
D	sodium hydroxide	oxidation

- 8 The diagrams show two cans in the same room. They are painted in different colours as shown. They are filled with hot water and left to cool down.



The hot water in the black can cools more quickly than the hot water in the white can.

Which row shows the reason for this?

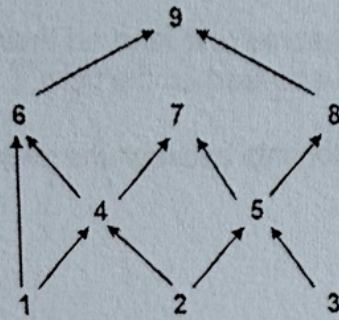
	black	white
A	better emitter	poorer emitter
B	poorer emitter	better emitter
C	better conductor	poorer conductor
D	poorer conductor	better conductor

- 9 A few drops of Universal Indicator are added to a test tube containing sulfuric acid.

Which colour change is most likely observed in the mixture as excess sodium hydroxide solution is gradually added?

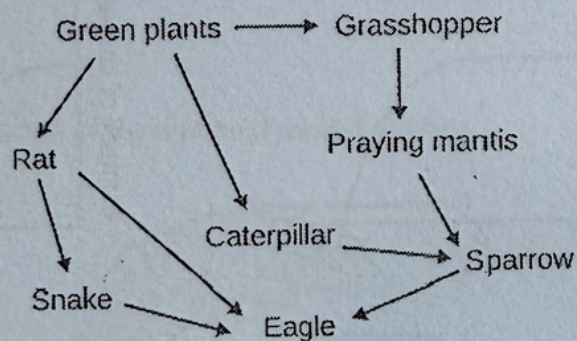
- A blue → green → red
- B blue → red → green
- C red → green → blue
- D red → blue → green

- 10 The diagram shows nine organisms forming a food web.



Which group of organisms are primary consumers?

- A 1, 2 and 3
 - B 4, 5 and 6
 - C 6, 7 and 8
 - D 7, 8 and 9
- 11 Study the food web shown.



If the grasshoppers are killed by insecticides, which of the following is most likely to occur?

- 1 Less competition for rat and caterpillar.
 - 2 The number of caterpillars decreases as it becomes the only food source for the sparrow.
 - 3 The number of praying mantis decreases tremendously because the source of food disappears.
- A 1 and 2
 - B 1 and 3
 - C 2 and 3
 - D 1, 2 and 3

- 12 The tick, oxpecker and zebra are identified to be in unique relationships.

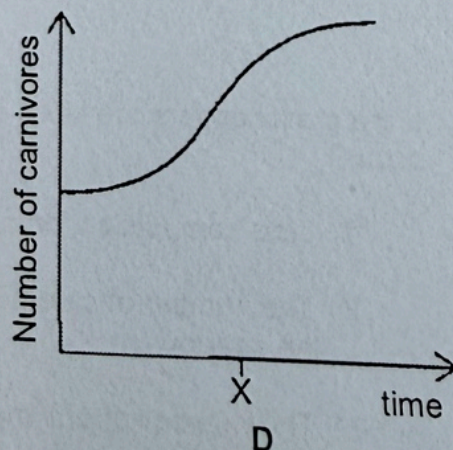
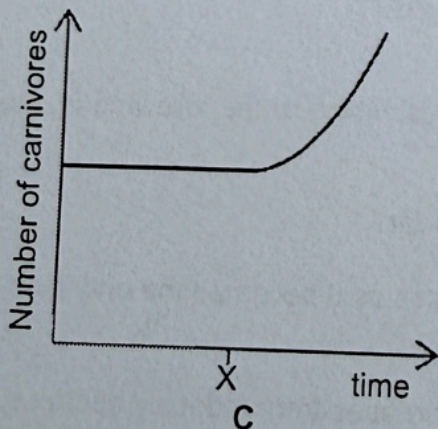
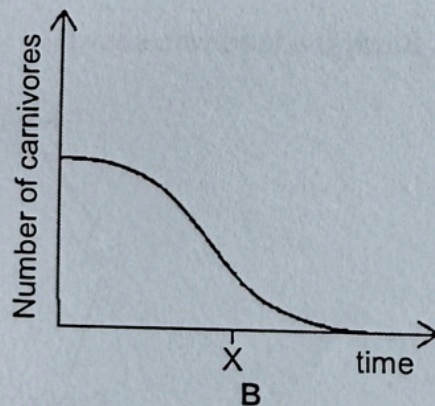
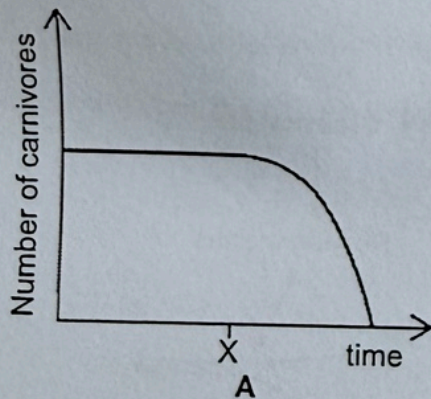
Ticks are often found on zebras and feed on their blood. Fortunately, oxpeckers are always nearby the zebras and feed on the ticks.

Which describes the relationship between the zebra and oxpecker?

- A mutualism
- B parasitism
- C predator-prey relationship
- D there is no relationship between them

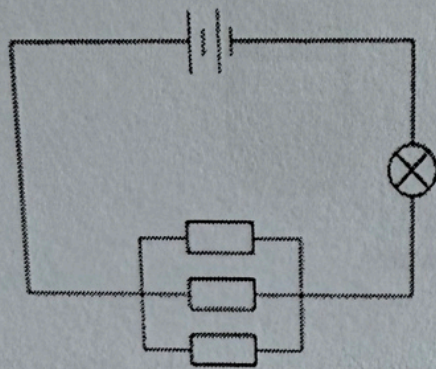
- 13 The graphs show how the number of carnivores change over a period in a habitat. At point X, the herbivores in the habitat are removed.

Which graph correctly shows the resulting effect on the number of carnivores?

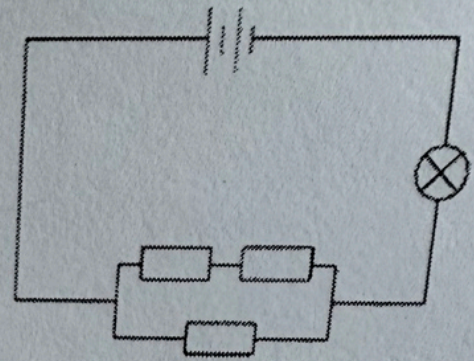


- 14 A set of electrical components are connected in various configurations.

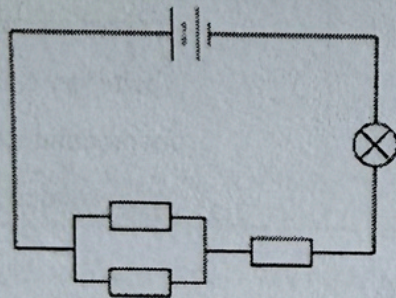
Given that the resistors are identical to each other, in which configuration will the light bulb be dimmest?



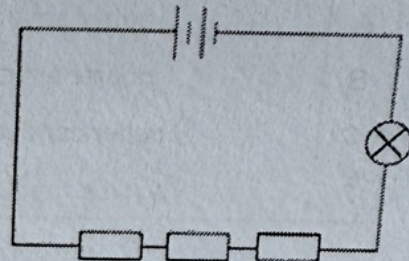
A



B

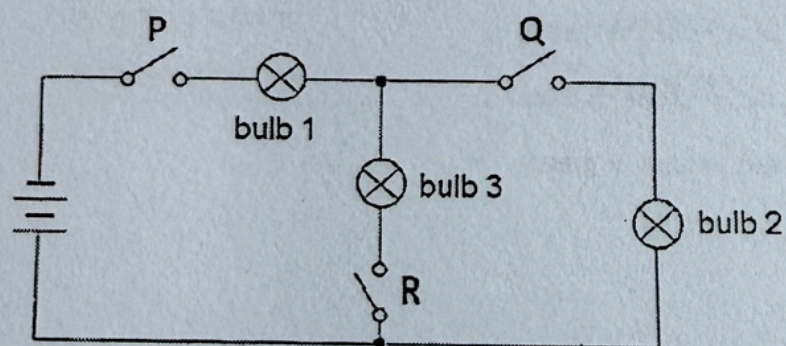


C



D

- 15 The diagram shows an electrical circuit.



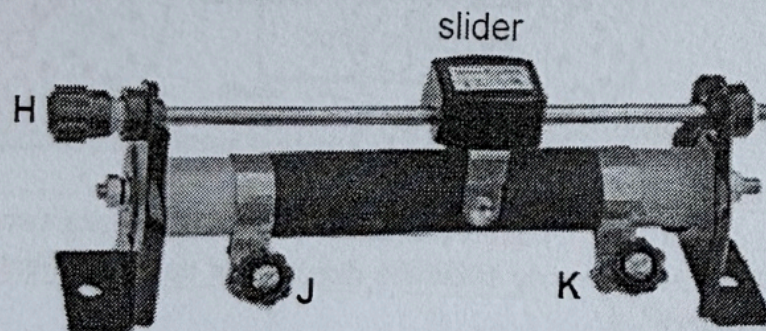
Which switches must be closed for bulbs 1 and 2 to light up but **not** bulb 3?

- A P and Q only
- B P and R only
- C Q and R only
- D P, Q and R

16 Which appliance **does not** make use of the heating effect of electricity?

- A electric hotplate
- B electric kettle
- C electric toaster
- D phone speaker

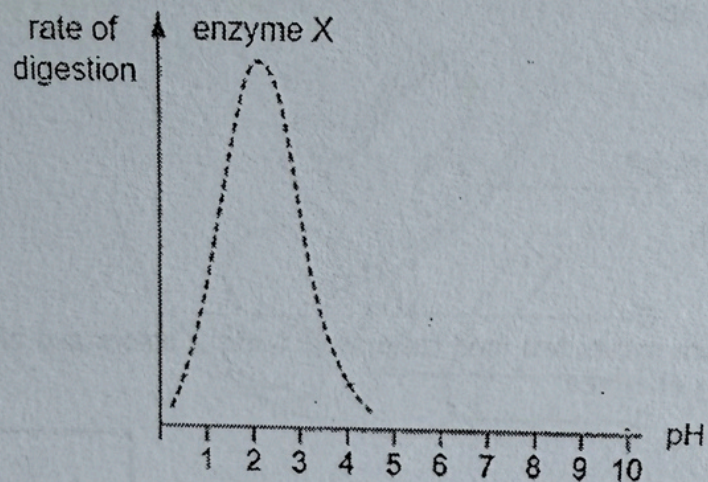
17 The diagram shows a rheostat. The three terminals are labelled H, J and K.



Which connection and slider position would give the lowest resistance?

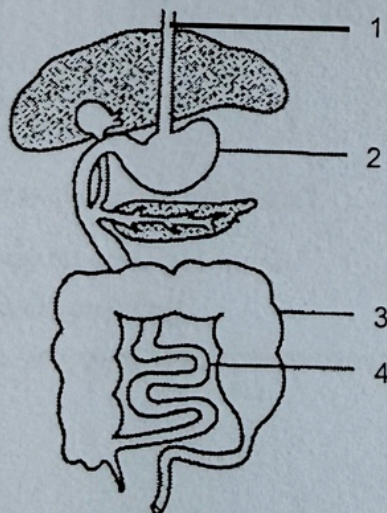
	connection	slider position
A	H and J	nearer to J
B	H and K	nearer to J
C	H and J	nearer to K
D	J and K	nearer to K

- 18 The graph shows the rate of digestion by enzyme X in different pH conditions.



Which part of the digestive system can enzyme X be found in?

- A mouth
 - B large intestine
 - C small intestine
 - D stomach
- 19 The diagram shows part of the human digestive system.



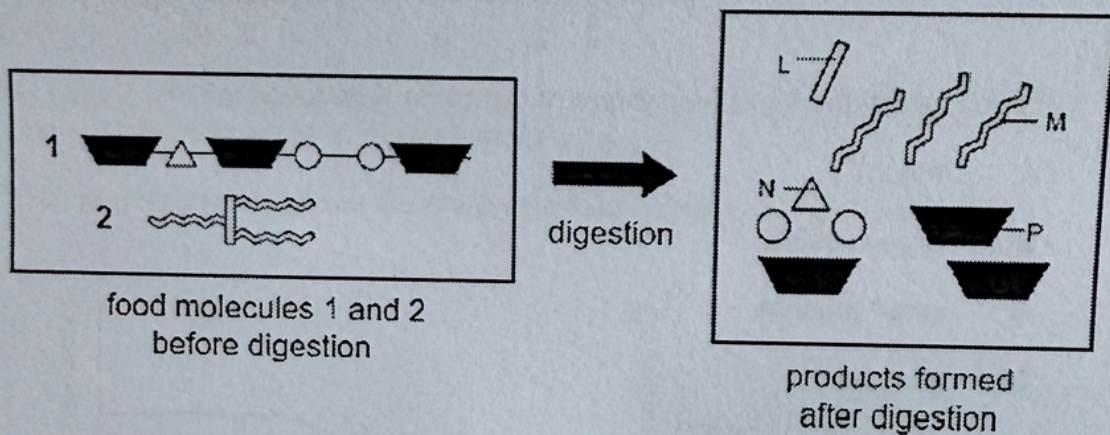
Which two structures are involved in the digestion of proteins?

- A 1 and 3
- B 1 and 4
- C 2 and 3
- D 2 and 4

20 Which substance **does not** diffuse into the blood stream from the small intestines?

- A amino acid
- B glucose
- C mineral salt
- D starch

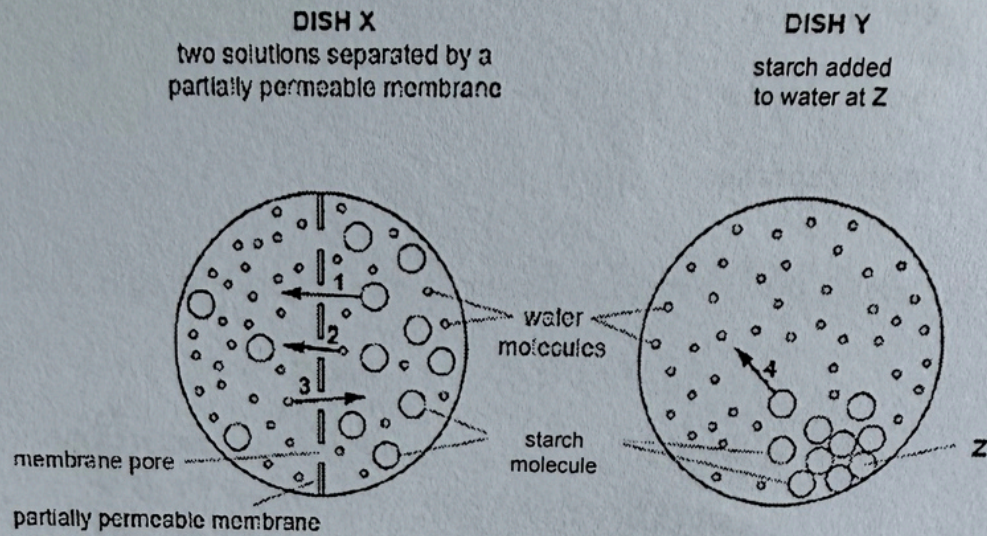
21 The diagram shows two food molecules 1 and 2 before and after they have been digested by enzymes.



Which substances are the products of fat digestion?

- A L and M
- B L and N
- C M and N
- D N and P

- 22 The diagrams show molecules of starch and water in solutions placed in two dishes X and Y.



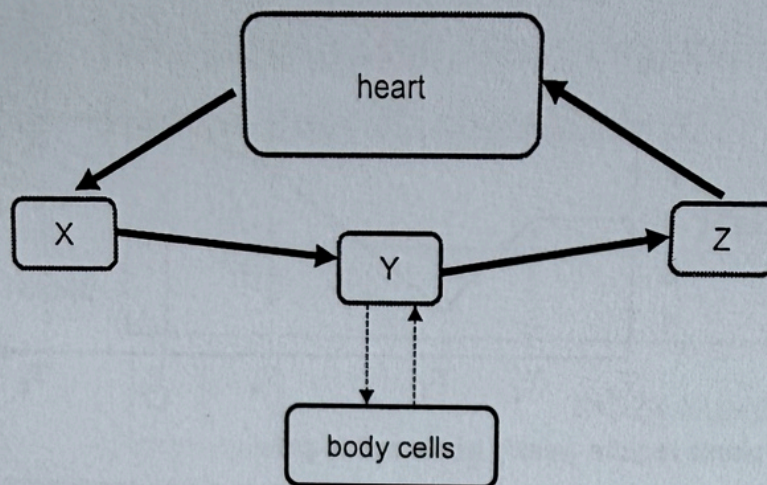
Which two arrows correctly show the direction of net movement of most water and starch molecules?

- A 1 and 2
 - B 2 and 3
 - C 2 and 4
 - D 3 and 4
- 23 Study the information given.
- 1 It carries heat around the body.
 - 2 It contains approximately 90 % of water.
 - 3 It transports waste materials

Which component of blood is described using the information given?

- A plasma
- B platelets
- C red blood cells
- D white blood cells

- 24 The diagram shows three types of blood vessels, X, Y and Z.



Which row correctly describes features of each blood vessel?

	allows exchange of materials	fluid under high pressure	fluid under low pressure
A	X	Y	Z
B	X	Z	Y
C	Y	X	Z
D	Y	Z	X

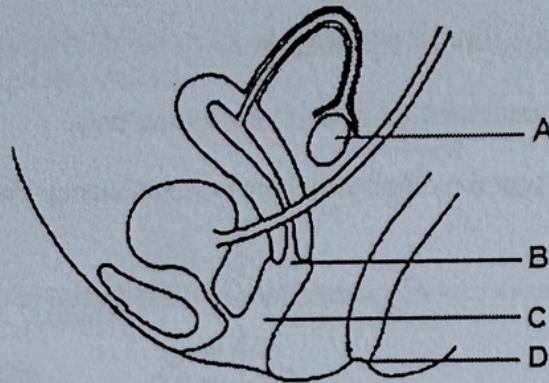
- 25 Which changes happen in **both** boys and girls during puberty?

- 1 height increase rapidly
- 2 hips grow wider
- 3 production of sex hormone
- 4 voice deepens

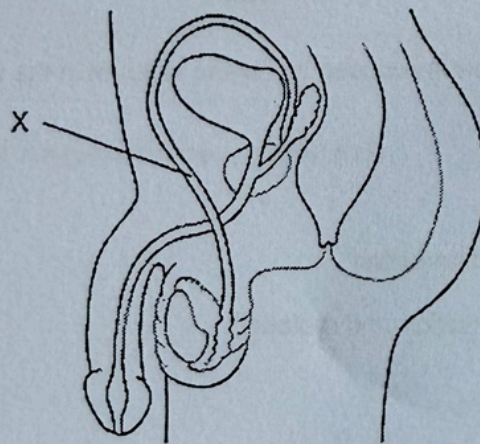
- A I and II only
- B I and III only
- C II and IV only
- D III and IV only

- 26 The diagram shows the side view of the female reproductive system.

Which position, A, B, C or D, shows the cervix?



- 27 The diagram shows the male reproductive system.



Which is/are the function(s) of the part labelled X?

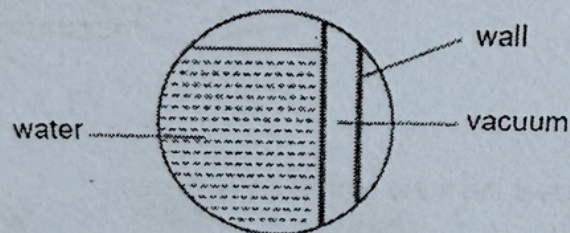
- 1 the passageway for urine and sperm
- 2 where sperms are produced
- 3 where sperms get transported from the testis to the urethra

- A 1 only
- B 1 and 3 only
- C 2 only
- D 3 only

28 Which option correctly describes Acquired Immune Deficiency Syndrome (AIDS)?

- A AIDS is caused by bacteria.
- B AIDS can be treated by antibiotics.
- C AIDS is transmitted by sexual intercourse only.
- D AIDS is caused by the Human Immunodeficiency Virus (HIV).

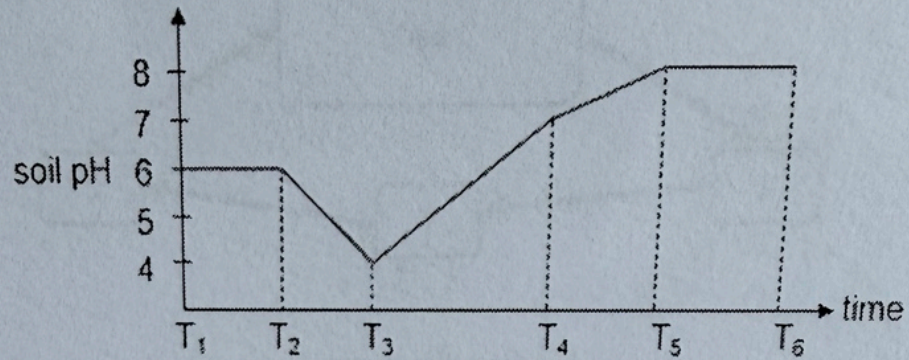
29 The diagram shows part of the structure of a flask used to contain hot water.



Which mode of heat flow is reduced by having vacuum in the flask?

- A conduction
- B convection
- C conduction and convection
- D conduction, convection and radiation

- 30 The graph below shows how the pH value of the soil in a farm field changes over time.



Blueberry plants require weakly acidic soil to grow.

Which statement best describes the growth of blueberry plants in the farmer's field?

- A Blueberry plants struggle to survive from T₄.
- B Blueberry plants will grow well only between T₄ and T₆.
- C Blueberry plants will grow best only between T₁ and T₂.
- D Blueberry plants will be able to grow throughout T₁ to T₆.

END OF BOOKLET A



ORCHID PARK SECONDARY SCHOOL

End-of-Year Examination 2024

CANDIDATE NAME

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LOWER SECONDARY SCIENCE

Booklet B

4 October 2024

Secondary 2 (G3)

2 hours
(for booklets A, B and C)

Setter: Mr Naufal

100 Marks

Additional Materials: Nil

READ THESE INSTRUCTIONS FIRST

Write your name, index number and class on all the work you hand in.
Write in dark blue or black ink on both sides of the paper.
Do not use paper clips, glue or correction fluid.

Section B (Structured Questions)

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

The number of marks is given in brackets [] at the end of each question or part question.

At the end of the examination, hand in Multiple Choice Answer Sheet, Booklets A, B and C separately.

For Examiner's Use	
Section A	
Section B	
Section C	
Total	

This document consists of 9 printed pages.

[Turn over

Section B [40 marks]

Answer **all** questions in the spaces provided.

- 1 Fig. 1.1 shows a rectangular block of density 50 kg/m^3 resting on the ground. The dimensions of the block are shown.

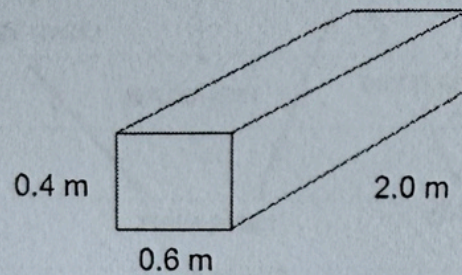


Fig. 1.1

- (a) Define the term pressure.

.....
.....

[1]

- (b) Calculate the weight of the rectangular block.
($1 \text{ kg} = 10 \text{ N}$)

weight =N [3]

- (c) Calculate the least possible pressure exerted on the ground by the block.

least possible pressure =N/m² [2]

2 Fig. 2.1 shows part of the food web for the coral reef ecosystem.

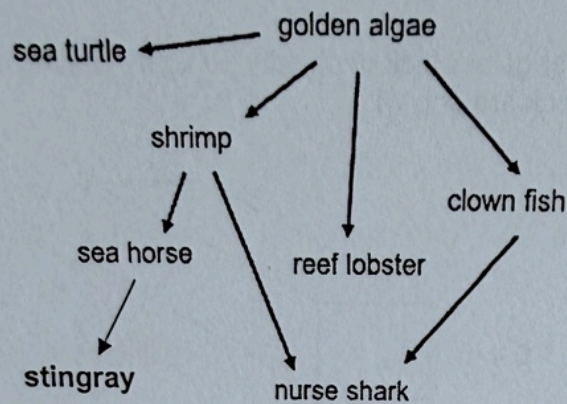


Fig. 2.1

- (a) With reference to Fig. 2.1, suggest a primary producer and a secondary consumer.

producer

secondary consumer..... [2]

- (b) Using the food web in Fig. 2.1, draw a food chain consisting of 4 organisms.

..... [1]

- (c) More stingrays were suddenly introduced into the coral reef ecosystem.

Explain how the population of shrimps could be affected.

.....

 [2]

- (d) Using a **named** example, explain parasitism.

.....

 [2]

3 (a) Draw in the space provided circuits with the corresponding requirements:

- (i) Circuit A – 2 x dry cells, a switch (to turn on and off both light bulbs), an ammeter (to measure overall current) a voltmeter (to measure potential difference across one of the light bulbs) and 2 x light bulbs arranged in parallel.

Circuit A

[3]

- (ii) Circuit B – 2 x dry cells, a switch (to turn on and off both light bulbs) and 2 x light bulbs arranged in series.

Circuit B

[1]

- (iii) State **two** advantages of having light bulbs in parallel instead of in series.

.....

.....

.....

.....

.....

[2]

- 4 Fig. 4.1 shows the nutritional facts found on the label of 2 different cookie boxes.

DOUBLE CHOCOLATE CHIP

Nutrition Facts	
1 serving per container	
Serving size	1 Cookie (113g)
Amount Per Serving	
Calories	450
% Daily Value*	
Total Fat 16g	21%
Saturated Fat 9g	45%
Trans Fat 0g	
Cholesterol 69mg	23%
Sodium 258mg	11%
Total Carbohydrate 57g	21%
Dietary Fiber 5g	18%
Total Sugars 39g	
Includes 37g Added Sugars	74%
Protein 18g	
Vitamin D 12mcg 60%	Calcium 31mg 2%
Iron 4mg 22%	Potas 417mg 9%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

STRAWBERRY TOASTER PASTRY

Nutrition Facts	
1 serving per container	
Serving size	1 Cookie (113g)
Amount Per Serving	
Calories	450
% Daily Value*	
Total Fat 18g	23%
Saturated Fat 10g	50%
Trans Fat 0g	
Cholesterol 43mg	14%
Sodium 277mg	12%
Total Carbohydrate 85g	31%
Dietary Fiber 1g	4%
Total Sugars 49g	
Includes 48g Added Sugars	96%
Protein 12g	
Vitamin D 8mcg	40%
Calcium 42mg	3%
Iron 1mg	6%
Potassium 77mg	2%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Fig. 4.1

- (a) Why is there a need to digest our food?

.....
..... [1]

- (b) State **one** similarity and **one** difference between the 2 cookies.

.....
.....
.....
..... [2]

- (c) Wendy thinks that one of these cookies can help prevent constipation.

Which cookie is she referring?

Explain your answer.

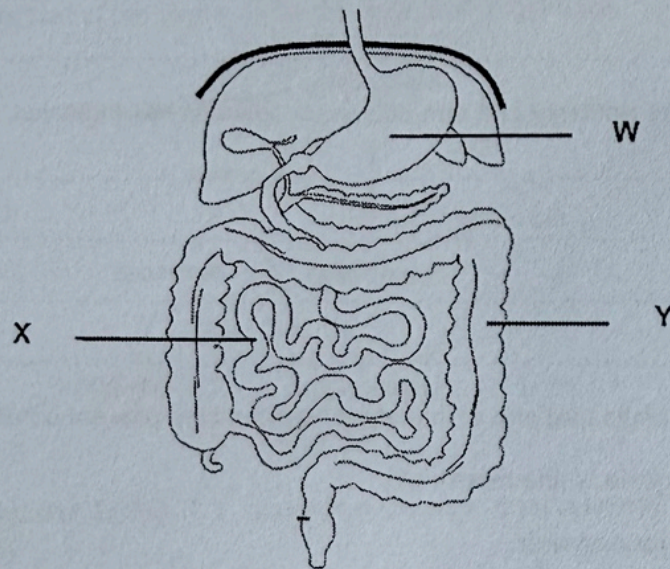
.....
.....
.....
..... [2]

- d) A nutritionist concludes that both cookies may lead to diabetes if consumed regularly over a long period of time.

With reference to the nutritional labels, suggest how this conclusion is made.

.....
.....
.....
..... [2]

- 5 Fig. 5.1 shows the different organs in the human digestive system.



Name the parts of the digestive system labelled **W**, **X** and **Y**.

Indicate with a tick (✓) if the respective enzyme is present to help with digestion in that particular organ. An example is provided.

part	name of organ	presence of carbohydrase	presence of protease	presence of lipase
e.g	mouth	✓		
W				
X				
Y				

[4]

- 6 Fig. 6.1 shows a blood capillary in the human body.

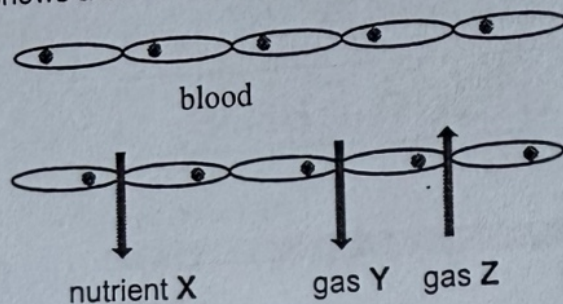


Fig. 6.1

- (a) Based on Fig. 6.1, name and define the process taking place which allows nutrient X to leave the blood capillary.

.....

 [2]

- (b) Identity of nutrient X, gas Y and gas Z.

Nutrient X.....
 Gas Y.....
 Gas Z..... [3]

- (c) The stem of a plant is ringed as shown in Fig. 6.2. A bulge on the stem occurred after some time.

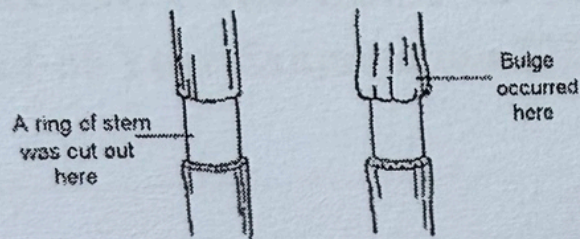


Fig. 6.2

- (i) State the **two** types of tissue that make up the transport system in plants. [2]

.....

- (ii) Explain the bulge shown in Fig. 6.2.

.....
.....
.....
.....
..... [3]

END OF BOOKLET B



ORCHID PARK SECONDARY SCHOOL

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LOWER SECONDARY SCIENCE

Booklet C

4 October 2024

Secondary 2 (G3)

2 hours
(for booklets A, B and C)

Setter: Mr Naufal

100 Marks

Additional Materials: Nil

READ THESE INSTRUCTIONS FIRST

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Write in dark blue or black ink on both sides of the paper.

Do not use paper clips, glue or correction fluid.

Section C (Free Response Questions)

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

The number of marks is given in brackets [] at the end of each question or part question.

At the end of the examination, hand in Multiple Choice Answer Sheet, Booklets A, B and C separately.

For Examiner's Use	
Section C	

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[Turn over

Section C [30 marks]

Answer **all** questions in the spaces provided.

- 1 Fig. 1.1 shows an electric kettle used to boil water for drinking.

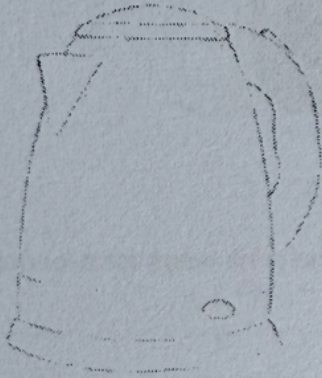


Fig. 1.1

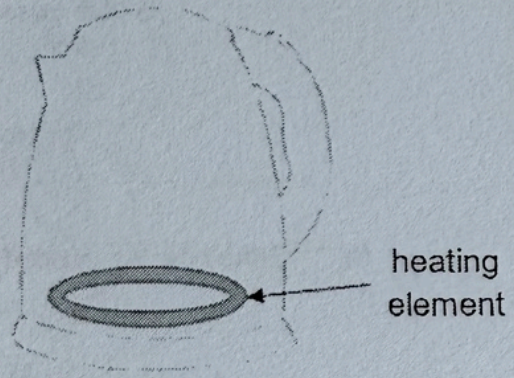


Fig. 1.2

- (a) (i) The heating element is placed at the bottom of the kettle.

Describe how all the water in the kettle is heated up.

.....

.....

.....

.....

..... [3]

- (ii) On Fig. 1.2, draw arrows to show the movement of water in the kettle when it is being heated. [1]

- (iii) The body of the kettle is made of a shiny metal.

State how this helps the water in the kettle remain hot for a longer period.

.....

.....

..... [1]

- (b) Hot water from the kettle is used to brew a small cup of coffee. The cup used is a double-glass wall cup as shown in Fig. 1.3. Air is trapped between the glass walls.

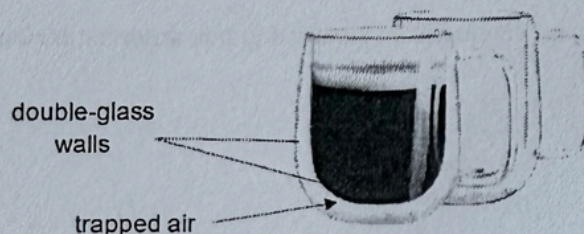


Fig. 1.3

- (i) State how the trapped air helps to keep the drink warm for a longer time.

 [1]
- (ii) What can replace the trapped air and reduce the transfer of heat even more?

 [1]
- (c) The kettle has a power rating of 2100 W. It takes 6 mins to boil water and is used twice a day.
- (i) Calculate the amount of energy in kWh used by the kettle in one week.

energy used =kWh [2]

- (ii) The cost of electricity is 30.17 cents per kWh.

Find the total cost of using the kettle for one week.

cost = \$..... [1]

[Turn over]

- 2 Fig. 2.1 shows an experiment set-up where calcium carbonate reacted with hydrochloric acid.

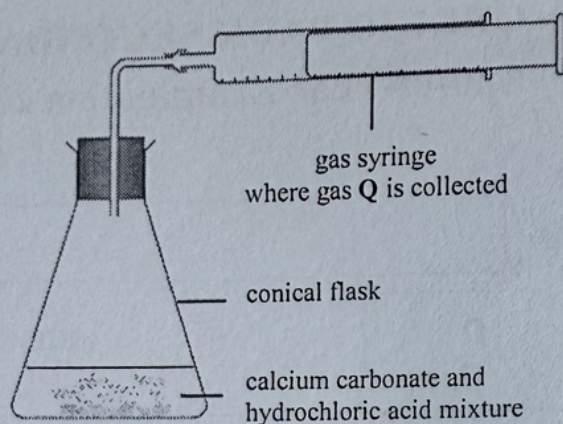


Fig. 2.1

- (a) (i) Deduce if the reaction in Fig. 2.1 is a physical change or a chemical change.

.....

[1]

- (ii) Name the products in this reaction, including gas Q.

1.....

2.....

3.....

[3]

- (iii) Describe a suitable test to identify gas Q.

test

Observation.....

.....

[2]

- (b) The same experiment was repeated twice with the acids being replaced.

One experiment was with nitric acid reacting with calcium carbonate, and the second experiment was sulfuric acid reacting with calcium carbonate.

All three acids had the same concentration.

Table 2.2 shows the volume of gas collected at the end of 10 minutes for each of the reactions. At 10 minutes, no increase of volume was observed.

Table 2.2

name of acid (chemical formula)	volume of gas collected / cm ³
hydrochloric acid (HCl)	75
nitric acid (HNO ₃)	75
sulfuric acid (H ₂ SO ₄)	150

Using the information in Table 2.2,

- (i) Describe the difference in volume of gas collected.

.....
..... [1]

- (ii) Explain this difference.

.....
..... [1]

- (c) In every of the three experiment, the mixture was continuously mixed in the conical flask throughout the 10 minutes of reaction time.

At 10 minutes, no further change to the volume of the gas was observed.

Suggest why there was no further change to the volume of gas for all three experiments.

.....
..... [1]

- (d) What is the colour of litmus paper when added to the acids.

.....
..... [1]

- 3 Fig. 3.1 shows the human transport system, which carries blood throughout the body.

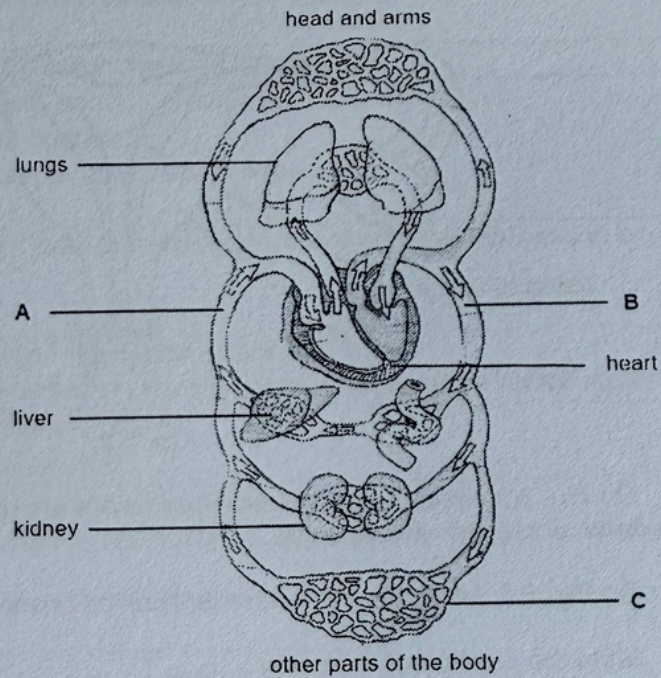


Fig. 3.1

- (a) Identify blood vessels **A**, **B** and **C** shown in Fig. 3.1.

A

B

C [2]

- (b) Describe how the concentrations of oxygen and carbon dioxide of blood change when it passes through blood vessel **C**.

Explain your answer.

.....

.....

.....

..... [2]

(c) Fig. 3.2 shows the female reproductive system.

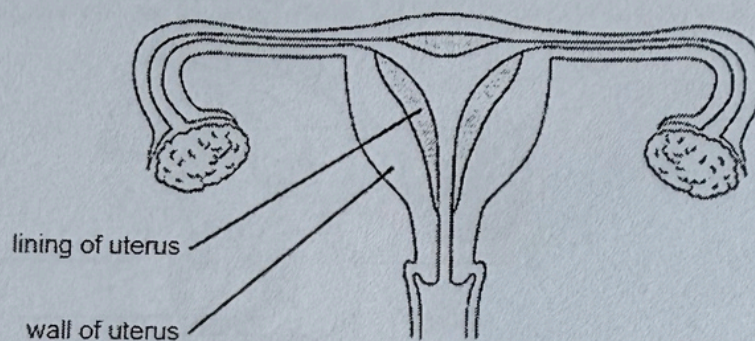


Fig. 3.2

- (i) On Fig. 3.2, label the part where sperm cells are deposited during sexual intercourse with the letter "X". [1]
- (ii) On Fig. 3.2, label the part where fertilisation takes place with the letter "Y". [1]
- (iii) State the function of the ovary. [1]

- (d) Julia keeps track of her menstrual cycles using the calendar shown in Fig. 3.3. Julia's menstruation started on 4 October, and she has shaded the day in the calendar. She has a regular 28-day menstrual cycle.

OCTOBER 2024

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER 2024

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Fig 3.3

[Turn over

- (i) State the date of her ovulation in October.

.....

[1]

- (ii) On Fig. 3.3, circle the start date of the next menstrual cycle.

[1]

- (iii) If Julia decides to get pregnant, state her fertile period in October.

.....

[1]

END OF BOOKLET C

Orchid Park Secondary School
Sec 2 G3 End Of Examination 2024
Lower Secondary Science
Answer Scheme

Section A

No	Answer	No	Answer	No	Answer
1	C	11	C	21	A
2	C	12	A	22	D
3	D	13	A	23	A
4	C	14	D	24	C
5	D	15	A	25	B
6	B	16	D	26	B
7	B	17	A	27	D
8	A	18	D	28	D
9	C	19	D	29	C
10	B	20	D	30	A

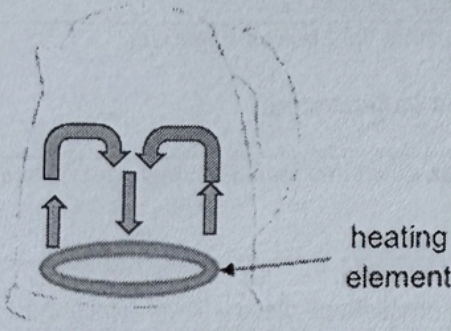
Section B

Ques	Answer
1a)	Force applied over area
b)	Volume= $0.4\text{m} \times 0.6\text{m} \times 2.0\text{m}$ $= 0.48\text{m}^3$ Mass= $50\text{kg/m}^3 \times 0.48\text{m}^3$ $= 24\text{kg}$ Weight= $24\text{kg} \times 10\text{N/kg}$ $= 240\text{N}$
c)	Largest area = $0.6\text{m} \times 2.0\text{m}$ $= 1.2\text{m}^2$ Lowest pressure = $240\text{N} / 1.2\text{m}^2$ $= 200\text{N/m}^2$
2a)	Golden algae; Sea horse /nurse shark
b)	Golden algae → shrimp → sea horse → stingray
c)	Sea horse population decrease; Shrimp population increase + due to less sea horse that feed on them.
d)	Organism benefit + host harmed, Any plausible named;
3a)	2 lightbulbs drawn in parallel;

2

	ammeter drawn in series; voltmeter symbol drawn parallel to one light bulb.																									
b)	Draws the circuit with light bulbs in series																									
c)	If one light bulb gets spoilt, the other light bulb will light up; Light bulbs will be brighter; Two light bulbs can be switched on separately.																									
4a)	Food are too big / need to break down into smaller substances to absorb into blood stream																									
b)	Similarity – calories / weight per serving Difference - in nutritional value cholesterol/ dietary fibre / total sugar/ total fats																									
c)	Double chocolate chip cookie; Contains 5g of dietary fibre.																									
d)	High intake of sugar can cause diabetes; Chocolate chip cookies have 38g of sugar per cookie and strawberry toaster has 49g of sugar																									
5	<table border="1"> <tr> <th>part</th><th>name of organ</th><th>presence of carbohydrase</th><th>presence of protease</th><th>presence of lipase</th></tr> <tr> <td>e.g</td><td>mouth</td><td>✓</td><td></td><td></td></tr> <tr> <td>W</td><td>stomach</td><td></td><td>✓</td><td></td></tr> <tr> <td>X</td><td>Small intestine</td><td>✓</td><td>✓</td><td>✓</td></tr> <tr> <td>Y</td><td>Large intestine</td><td></td><td></td><td></td></tr> </table>	part	name of organ	presence of carbohydrase	presence of protease	presence of lipase	e.g	mouth	✓			W	stomach		✓		X	Small intestine	✓	✓	✓	Y	Large intestine			
part	name of organ	presence of carbohydrase	presence of protease	presence of lipase																						
e.g	mouth	✓																								
W	stomach		✓																							
X	Small intestine	✓	✓	✓																						
Y	Large intestine																									
6a)	Diffusion; Net movement of nutrient X from a region of higher concentration to a region of lower concentration (from blood capillary to surrounding cells)																									
b)	Glucose / amino acids; Oxygen; Carbon dioxide.																									
c)i)	Xylem; Phloem.																									
ii)	Phloem tissue is removed in ringing; Phloem tissue transport food produced by leaves; Bulge formed as food is unable to be transported to the roots.																									
Section C																										
1a)i)	Water at bottom gains thermal energy and decreases in density; Hot water rise cold water sinks; convection current formed;																									

[Turn over]

ii)	Shows convection current formed
 Fig, 1.2	
iii)	Shiny surface is a poor radiator/emitter of heat
b)i)	Air is a poor conductor of heat
ii)	vacuum
c)i)	$6\text{min} \times 2 = 12\text{ min}$ $12\text{min} \times 7 = 84\text{ min}$ $1\text{h} = 60\text{min}$ $84\text{ min} = 1.4\text{h}$ $1\text{kW} = 1000\text{W}$ Electrical energy consumed = $1.4\text{h} \times 2.1\text{kW}$ $= 2.94\text{kWh}$
ii)	Cost = $2.94\text{kWh} \times 30.17\text{cents}$ $= 88.7\text{cents}$ $= \$0.89$
2a)i)	Chemical change
ii)	Calcium chloride; Water; Carbon dioxide gas.
iii)	Bubble gas into limewater; White precipitate/solid formed.
b)	Hydrochloric acid and nitric acid produced 75 cm^3 , less gas compared to sulfuric acid 150 cm^3 ; Sulfuric acid has more hydrogen atoms in its formula than nitric acid and hydrochloric acid.
c)	Reaction completed / no more calcium carbonate present.
d)	red
3a)	Vein; Artery; Capillary.
b)	Oxygen concentration in blood decrease and carbon dioxide concentration increases; Diffusion occurs.

c)i)	Labels vagina location
ii)	Labels any oviduct location
iii)	Produce ovum
d)i)	17 Oct
ii)	Circles 1 Nov
iii)	13 Oct to 18 Oct

~ End of Answer Scheme ~