

NAMA MURID:

1 Jam 15 Minit

KELAS:

BAHAGIAN A
[10 markah]

- 1 Jadual 1 menunjukkan bilangan ketulan ais dan bacaan suhu yang dicatat dalam suatu penyiasatan.
Table 1 shows the number of ice cubes and the reading of temperature recorded in an investigation.

Bilangan ketulan ais <i>Number of ice cubes</i>	2	4	6	8	10
Bacaan suhu (°C) <i>Temperature reading (°C)</i>	52	46	40	36	33

Jadual 1
Table 1

Hipotesis yang manakah paling sesuai untuk penyiasatan ini?
Which hypothesis is most suitable for this investigation?

- A Semakin bertambah bilangan ketulan ais, semakin meningkat bacaan suhu.
The more the number of ice cubes, the higher the reading of temperature.
- B Semakin bertambah bilangan ketulan ais, semakin menurun bacaan suhu.
The more the number of ice cubes, the lower the reading of temperature.
- C Semakin berkurangan bilangan ketulan ais, semakin menurun bacaan suhu.
The lesser the number of ice cubes, the lower the reading of temperature.
- D Semakin berkurangan bilangan ketulan ais, semakin seragam bacaan suhu.
As the number of ice cubes decreases, the reading of temperature becomes more uniform.

- 2 Rajah 1 menunjukkan haiwan X.
Diagram 1 shows animal X.



Rajah 1
Diagram 1

Antara berikut, yang manakah menunjukkan kedudukan haiwan X dalam rantai makanan dengan betul?
Which of the following shows the position of animal X in the food chain correctly?

- A Padi → Haiwan X → Belalang → Helang
Paddy → Animal X → Grasshopper → Eagle
- B Padi → Belalang → Haiwan X → Helang
Paddy → Grasshopper → Animal X → Eagle
- C Padi → Helang → Belalang → Haiwan X
Paddy → Eagle → Grasshopper → Animal X
- D Helang → Haiwan X → Belalang → Padi
Eagle → Animal X → Grasshopper → Paddy

- 3 Rajah 2 menunjukkan salah satu rangka utama manusia.
Diagram 2 shows one of the main human skeleton.



Rajah 2
Diagram 2

Apakah fungsi rangka tersebut?
What is the function of the skeleton?

- A Melindungi otak
To protect the brain
- B Menyokong tubuh
To support the body
- C Untuk pergerakan
For movement
- D Melindungi organ dalaman
To protect the internal organs

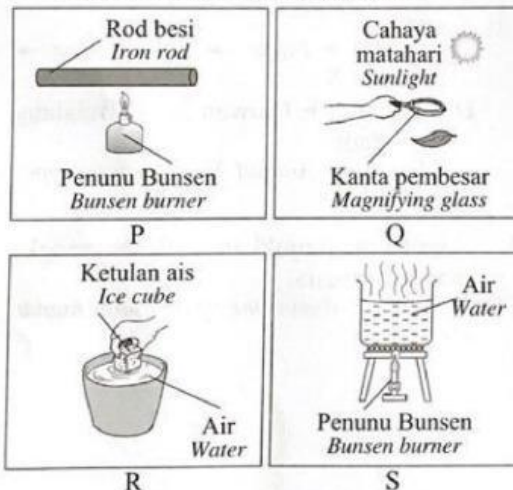
- 4 Jirim Q mempunyai ciri-ciri berikut.
Matter Q has the following characteristics.

- Mempunyai jisim
Has mass
- Mengikut bentuk bekas
Follow the shape of the container
- Tidak mempunyai isi padu tetap
Has no fixed volume

Apakah jirim Q?
What is matter Q?

- A Air C Batu
Water Rock
- B Udara D Madu
Air Honey

- 5 Rajah 3 menunjukkan empat penyiasatan yang dilakukan oleh sekumpulan murid.
Diagram 3 shows four investigations carried out by a group of pupils.



Rajah 3
Diagram 3

Penyiasatan di atas yang manakah menunjukkan kehilangan haba?
Which of the investigations above shows the loss of heat?

- A Q sahaja C P dan S
Q only P and S
- B R sahaja D P, Q dan S
R only P, Q and S

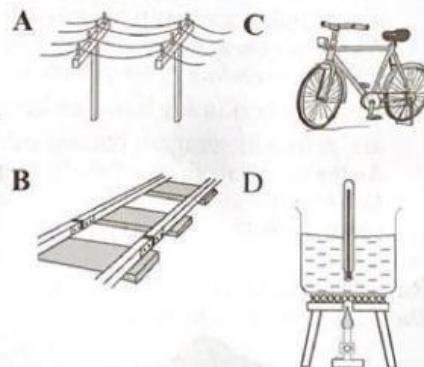
- 6 Pernyataan di bawah menerangkan ciri-ciri khas tiga jenis tumbuhan.
The following statement describes the specific characteristics of three types of plants.

Pokok semalu berduri. Pokok buluh berbulu halus. Buah pong-pong beracun.
Mimosa plants have sharp thorns. Bamboo plants have fine hairs. Pong-pong fruits are poisonous.

Mengapakah tumbuhan tersebut mempunyai ciri-ciri khas ini?
Why do those plants have such characteristics?

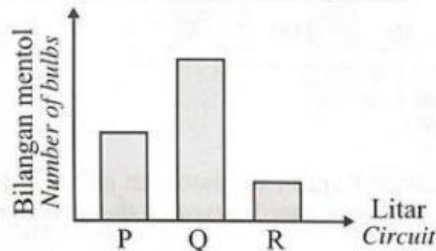
- A Menyebarakan biji benih
To disperse the seeds
- B Melindungi diri daripada musuh
To protect themselves from enemies
- C Menjalankan proses fotosintesis
To carry out photosynthesis process
- D Melindungi diri daripada cuaca melampau
To protect from extreme weather

- 7 Antara berikut, yang manakah tidak menggunakan prinsip pengembangan dan pengecutan haba?
Which of the following does not use the principle of expansion and contraction of heat?



- 8 Rajah 4 menunjukkan bilangan mentol di dalam tiga litar bersiri, P, Q dan R. Setiap litar itu disambung pada dua sel kering yang sama.

Diagram 4 shows the number of bulbs in three series circuits, P, Q and R. Each circuit is connected to two similar dry cells.



Rajah 4
Diagram 4

Antara berikut, jadual yang manakah menunjukkan pemerhatian yang betul?
Which of the following tables shows the correct observation?

A

Litar Circuit	P	Q	R
Kecerahan mentol Brightness of bulbs	Sangat cerah Very bright	Malap Dim	Cerah Bright

B

Litar Circuit	P	Q	R
Kecerahan mentol Brightness of bulbs	Malap Dim	Cerah Bright	Sangat cerah Very bright

C

Litar Circuit	P	Q	R
Kecerahan mentol Brightness of bulbs	Cerah Bright	Sangat cerah Very bright	Malap Dim

D

Litar Circuit	P	Q	R
Kecerahan mentol Brightness of bulbs	Cerah Bright	Malap Dim	Sangat cerah Very bright

- 9 Rajah 5 menunjukkan dua kenderaan.
Diagram 5 shows two vehicles.



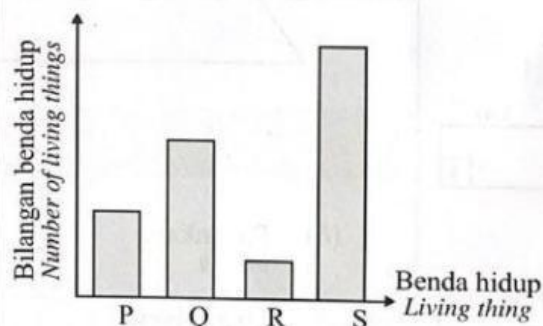
Rajah 5
Diagram 5

Sumber tenaga elektrik yang digunakan oleh kenderaan tersebut ialah
The source of electrical energy used by the vehicles is

	Kereta Car	Basikal Bicycle
A	Akumulator Accumulator	Sel kering Dry cell
B	Dinamo Dynamo	Akumulator Accumulator
C	Akumulator Accumulator	Dinamo Dynamo
D	Sel kering Dry cell	Akumulator Accumulator

- 10 Rajah 6 menunjukkan carta palang bagi sekumpulan benda hidup dalam suatu rantai makanan.

Diagram 6 shows a bar chart of a group of living things in a food chain.



Rajah 6
Diagram 6

Antara benda hidup berikut, yang manakah merupakan pengeluar?
Which of the following living things is a producer?

- A P C R
B Q D S

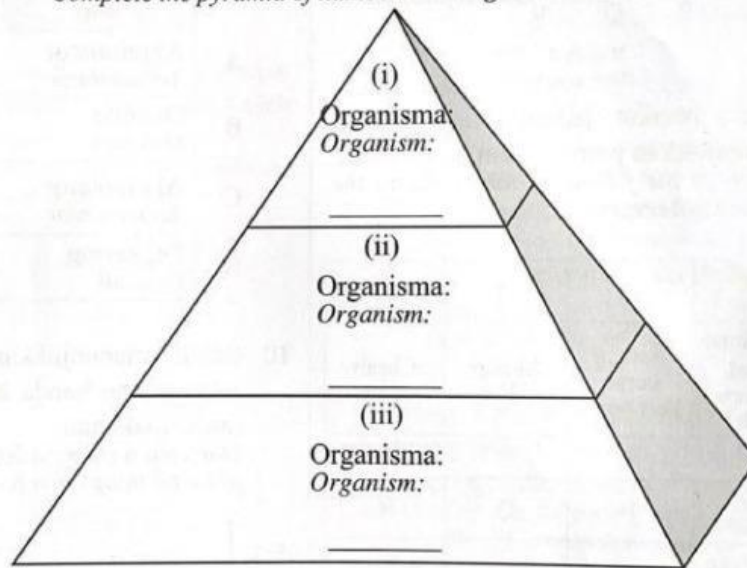
BAHAGIAN B
[8 markah]

- 1 Jadual 1 menunjukkan bilangan organisma J, K dan L.
Table 1 shows the number of organisms J, K and L.

Organisma Organism	J	K	L
Bilangan organisma Number of organisms	10	100	40

Jadual 1
Table 1

- (a) Lengkapkan piramid nombor dalam Rajah 1 berdasarkan jadual di atas.
Complete the pyramid of numbers in Diagram 1 based on the table above.



Rajah 1
Diagram 1

[3 markah]
[3 marks]

- (b) Padankan.
Match.

Organisma
Organism

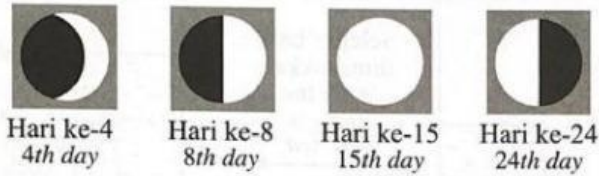
J •
K •
L •

Saiz
Size

• Besar
Big

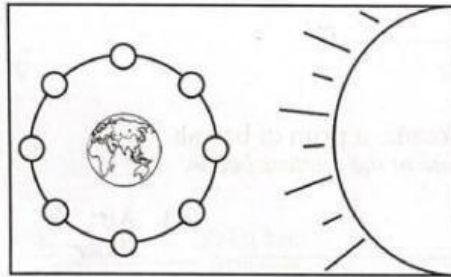
[1 markah]
[1 mark]

- 2 Rajah 2.1 menunjukkan fasa-fasa Bulan yang kelihatan pada hari-hari tertentu dalam takwim Qamari.
Diagram 2.1 shows the phases of the Moon that appear on certain days in the Lunar calendar.



Rajah 2.1
Diagram 2.1

- (a) Berdasarkan Rajah 2.1, lorekkan kedudukan fasa Bulan pada hari ke-8 dan fasa Bulan pada hari ke-24 dalam Rajah 2.2.
Based on Diagram 2.1, shade the position of the Moon phase on the 8th day and the Moon phase on the 24th day in Diagram 2.2.



Rajah 2.2
Diagram 2.2

[2 markah]
[2 marks]

2(a)

	2
--	---

- (b) Namakan fasa Bulan yang berikut.
Name the following phases of the Moon.

Hari ke-4 4th day	Hari ke-15 15th day

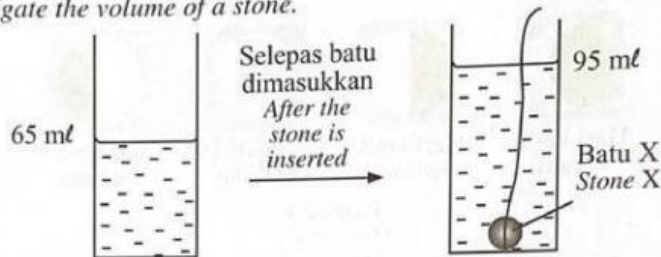
[2 markah]
[2 marks]

2(b)

	2
--	---

BAHAGIAN C
[32 markah]

- 1 Rajah 1.1 menunjukkan suatu penyiasatan yang dijalankan oleh sekumpulan murid untuk menyiasat isi padu sebiji batu.
Diagram 1.1 shows an investigation carried out by a group of pupils to investigate the volume of a stone.



Rajah 1.1
Diagram 1.1

- (a) Berapakah isi padu batu itu?
What is the volume of the stone?

Isi padu:
Volume: _____ ml

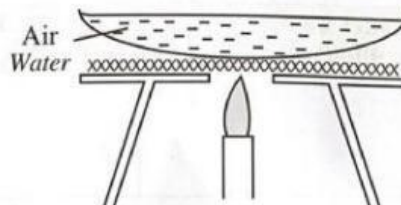
[1 markah]
[1 mark]

- (b) Nyatakan keadaan jirim di bawah.
State the state of the matters below.

(i) Batu: _____ (ii) Air: _____
Stone: _____ Water: _____

[2 markah]
[2 marks]

- (c) Seterusnya, kumpulan murid itu memasukkan kesemua air di dalam silinder itu ke dalam sebuah bekas. Bekas itu dipanaskan selama 30 minit seperti yang ditunjukkan dalam Rajah 1.2.
Then, the group of pupils pour all the water in the cylinder into a container. The container was heated for 30 minutes as shown in Diagram 1.2.



Rajah 1.2
Diagram 1.2

- (i) Apakah yang dapat diperhatikan pada isi padu air selepas 30 minit?
What can be observed on the volume of water after 30 minutes?

[1 markah]
[1 mark]

- (ii) Berikan **satu** alasan bagi jawapan kamu di (c)(i).
Give **one** reason for your answer in (c)(i).

[1 markah]
[1 mark]

Untuk
Kegunaan
Pemeriksa

1(c)(ii)

	1
--	---

- (d) Apakah proses yang terlibat di (c)?
What is the process involved in (c)?

[1 markah]
[1 mark]

1(d)

	1
--	---

- 2 Mukris menjalankan satu penyiasatan seperti dalam Rajah 2. Dua batang paku besi dimasukkan ke dalam dua bikar yang berbeza.
Mukris carried out an investigation as shown in Diagram 2. Two iron nails are put into two different beakers.



Rajah 2
Diagram 2

- (a) Apakah pemerhatian yang boleh dibuat terhadap paku besi di dalam bikar V dan bikar W selepas 2 minggu?
What observation can be made on iron nails in beaker V and beaker W after 2 weeks?

- (i) Bikar V:

Beaker V: _____

- (ii) Bikar W:

Beaker W: _____

[2 markah]
[2 marks]

2(a)(i)(ii)

	2
--	---

- (b) Nyatakan inferens bagi jawapan di (a).
State an inference for the answer in (a).

[1 markah]
[1 mark]

2(b)

	1
--	---

2(c)(i)

	1
--	---

2(c)(ii)

	1
--	---

(c) Berdasarkan jawapan kamu di (a), nyatakan:
Based on your answer in (a), state:

(i) pemboleh ubah dimanipulasikan.
the manipulated variable.

[1 markah]
[1 mark]

(ii) pemboleh ubah bergerak balas.
the responding variable.

[1 markah]
[1 mark]

(d)



Pagar besi rumah sudah berkarat.
The iron gate is rusty.

Puan Zakiah
Mrs. Zakiah

(i) Nyatakan ciri-ciri pagar besi rumah Puan Zakiah berdasarkan situasi di atas.
State the characteristics of the iron gate of Mrs. Zakiah's house based on the situation above.

[3 markah]
[3 marks]

2(d)(i)

	3
--	---

2(d)(ii)

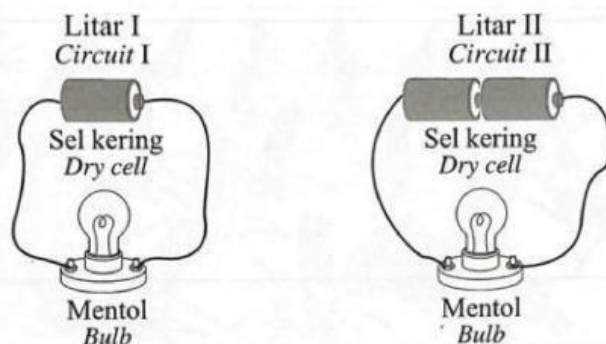
	1
--	---

(ii) Berikan **satu** cara untuk membantu Puan Zakiah.
*Give **one** method to help Mrs. Zakiah.*

[1 markah]
[1 mark]

- 3 Sekumpulan murid menjalankan suatu penyiasatan seperti dalam Rajah 3.1.
A group of pupils carried out an investigation as shown in Diagram 3.1.

Untuk
Kegunaan
Pemeriksa



Rajah 3.1
Diagram 3.1

- (a) Ramalkan apa yang berlaku dalam litar I, jika
Predict what will happen in circuit I, if

- (i) satu mentol ditambah. Jelaskan.
one bulb is added. Explain.

[2 markah]
[2 marks]

3(a)(i)

	2
--	---

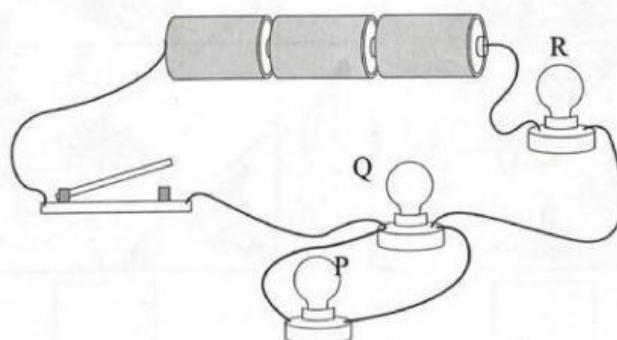
- (ii) satu sel kering ditambah. Jelaskan.
one dry cell is added. Explain.

[2 markah]
[2 marks]

3(a)(ii)

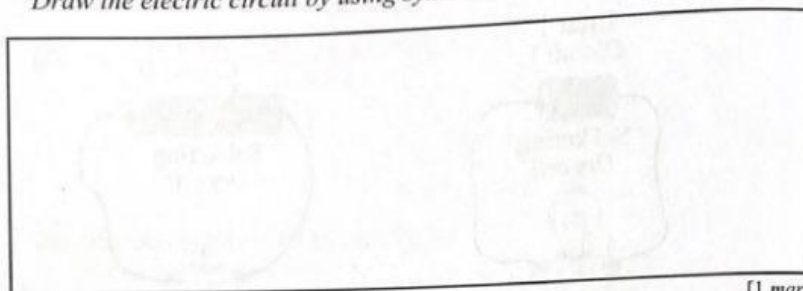
	2
--	---

- (b) Rajah 3.2 menunjukkan satu susunan litar elektrik.
Diagram 3.2 shows an arrangement of electric circuit.



Rajah 3.2
Diagram 3.2

Lukiskan litar elektrik itu dalam bentuk simbol.
Draw the electric circuit by using symbols.



[1 markah]
[1 mark]

3(b)

	1
--	---

- (c) Berdasarkan litar dalam Rajah 3.2, nyatakan sama ada mentol-mentol di bawah disusun secara selari atau bersiri.
Based on the circuit in Diagram 3.2, state whether the bulbs below are arranged in parallel or in series.

3(c)(i)(ii)

	2
--	---

- (i) P dan Q: _____
P and Q: _____
- (ii) Q dan R: _____
Q and R: _____

[2 markah]
[2 marks]

(d)

Semakin meningkat bilangan sel kering, semakin cerah mentol.
As the number of dry cells increases, the brightness of the bulbs increases.

Berdasarkan hipotesis di atas, apakah
Based on the hypothesis above, what is

- (i) pemboleh ubah dimanipulasikan?
the manipulated variable?

3(d)(i)

	1
--	---

[1 markah]
[1 mark]

- (ii) pemboleh ubah bergerak balas?
the responding variable?

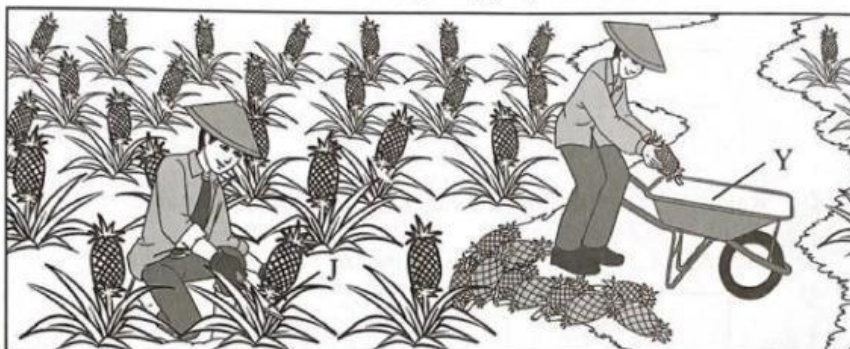
3(d)(ii)

	1
--	---

[1 markah]
[1 mark]

- 4 Rajah 4.1 menunjukkan satu situasi di ladang nanas.
Diagram 4.1 shows a situation in a pineapple farm.

Untuk
Kegunaan
Pemeriksa



Rajah 4.1
Diagram 4.1

- (a) Kenal pasti mesin ringkas J.
Identify the simple machine J.

[1 markah]
[1 mark]

4(a)

	1
--	---

- (b) Nyatakan **dua** jenis mesin ringkas yang terdapat pada mesin kompleks Y.
State **two** types of simple machines which are found in complex machine Y.

(i) _____

(ii) _____

[2 markah]
[2 marks]

4(b)

	2
--	---

- (c) (i) Laluan yang manakah paling mudah untuk menolak mesin kompleks Y ke atas bukit? Tandakan (✓) pada kotak di bawah.
Which path is the easiest to push the complex machine Y to the top of the hill? Tick (✓) in the box below.



--



--

Untuk
Kegunaan
Pemeriksa

4(c)(i)(ii)

2

- (ii) Berikan alasan kamu.
Give your reason.

[2 markah]
[2 marks]

- (d) Rajah 4.2 menunjukkan dua kaedah yang digunakan oleh petani untuk membajak tanah.
Diagram 4.2 shows two methods used by farmers to plough soil.



K



L

Rajah 4.2
Diagram 4.2

Membajak tanah menggunakan kaedah K mengambil masa selama 2 minggu, manakala kaedah L mengambil masa selama sehari.
Ploughing soil using method K takes 2 weeks, while method L takes about a day.

- (i) Kaedah yang manakah mendatangkan hasil tanaman yang banyak?
Which method produces a larger yield of crops?

4(d)(i)

1

[1 markah]
[1 mark]

- (ii) Tuliskan alasan kamu.
Write your reason.

4(d)(ii)

2

[2 markah]
[2 marks]