UJIAN AKHIR SESI AKADEMIK(UASA)
PENTAKSIRAN BILIK DARJAH

1 / 50

NAMA MURID: .....

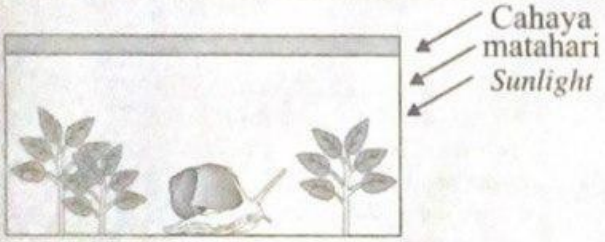
1 Jam 15 Minit

KELAS: .....

BAHAGIAN A
[10 *markah*]

1 **Penyiasatan**
Investigation

Seekor siput telah dimasukkan ke dalam sangkar seperti dalam Rajah 1.
A snail is put into a cage as in Diagram 1.



Rajah 1
Diagram 1

Ramalkan perubahan pada tumbuhan di dalam sangkar selepas 3 hari.
Predict the change on the plants in the cage after 3 days.

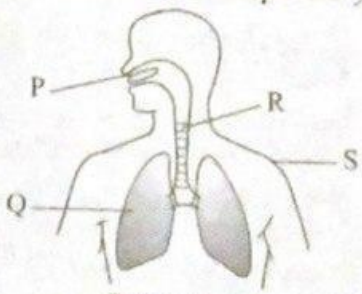
A Bilangan tumbuhan meningkat
The number of plants increases

B Tumbuhan cepat membesar
The plants grow faster

C Bilangan daun tumbuhan semakin berkurangan
The number of leaves of the plants decreases

D Tumbuhan semakin kekuningan
The plants become more yellowish

2 Rajah 2 menunjukkan sistem pernafasan manusia.
Diagram 2 shows human respiratory system.

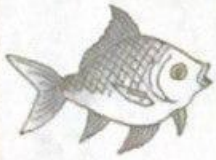


Rajah 2
Diagram 2

Antara organ P, Q, R dan S, yang manakah tidak terlibat dalam proses pernafasan?
Which of the organs P, Q, R and S does not involved in breathing process?

A P
B Q
C R
D S

3 Antara berikut, padanan yang manakah betul?
Which of the following matches is correct?

	Organisma *Organism*	Cara pernafasan *Way of breathing*
A		Kulit lembap *Moist skin*
B		Peparu *Lungs*
C		Insang *Gills*
D		Bonggol *Hump*

LIVEWORKSHEETS

4 Antara berikut, yang manakah diperlukan oleh tumbuhan untuk menjalankan fotosintesis?
Which of the following are needed by plants to undergo photosynthesis?

I Oksigen
Oxygen

II Air
Water

III Makanan
Food

IV Cahaya matahari
Sunlight

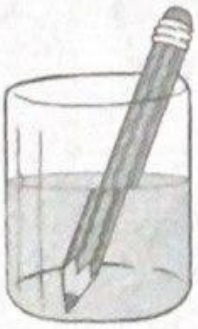
A I dan III
I *and* III

B II dan IV
II *and* IV

C I, II dan III
I, II *and* III

D I, II dan IV
I, II *and* IV

5 Rajah 3 menunjukkan sebatang pensel kelihatan bengkok apabila dimasukkan ke dalam gelas berisi air.
Diagram 3 shows a pencil looks bent when put into a glass of water.



Rajah 3
Diagram 3

Fenomena di atas menunjukkan cahaya
The above phenomenon shows that light

A boleh dipantulkan
can be reflected

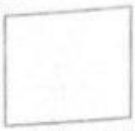
B bergerak lurus
travels in a straight line

C boleh dibiaskan
can be refracted

D bergerak laju
moves fast

6 Antara berikut, yang manakah merupakan contoh objek lut sinar?
Which of the following is an example of a transparent object?

A



Plastik putih
White plastic

C

Plastik jernih
Clear plastic

B

Plastik hitam
Black plastic

D

Plastik kelabu
Grey plastic

7

Rajah 4
Diagram 4

Bunyi loceng daripada penjual aiskrim boleh didengari oleh ketiga-tiga murid itu.
The bell sound from the ice cream seller can be heard by the three pupils.

Apakah kesimpulan yang sesuai berdasarkan situasi di atas?
What is the suitable conclusion based on the above situation?

A Bunyi boleh dipantulkan
Sound can be reflected

B Bunyi bergerak satu arah sahaja
Sound travels in one direction only

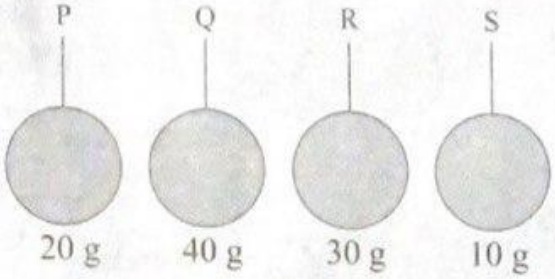
C Bunyi bergerak ke semua arah
Sound travels in all directions

D Bunyi boleh diserap
Sound can be absorbed

LIVEWORKSHEETS

Soalan 8 dan 9
Questions 8 and 9

Rajah 5 menunjukkan objek P, Q, R dan S yang dilepaskan serentak dari ketinggian 5 m.
Diagram 5 shows objects P, Q, R and S that are released simultaneously from a height of 5 m.



Rajah 5
Diagram 5

8 Objek yang manakah sampai ke tanah paling cepat?
Which object is the fastest to reach the ground?

A P
B Q
C R
D S

9 Jika kesemua objek itu dilepaskan serentak di Bulan, apakah pemerhatian yang boleh dibuat?
If all of the objects were released at the same time on the Moon, what observation can be made?

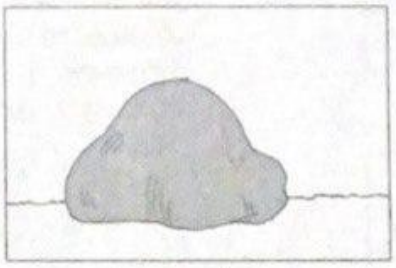
A Keempat-empat objek itu jatuh serentak
All of the four objects fell together

B Objek S jatuh lebih awal, diikuti objek P, R dan Q
Object S falls earlier, followed by objects P, R and Q

C Objek Q jatuh lebih awal, diikuti objek P, R dan S
Object Q falls earlier, followed by objects P, R and S

D Keempat-empat objek itu akan hilang
All of the four objects will disappear

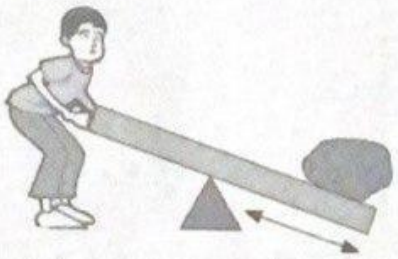
10 Rajah 6 menunjukkan batu besar di tepi jalan.
Diagram 6 shows a large rock by the road.



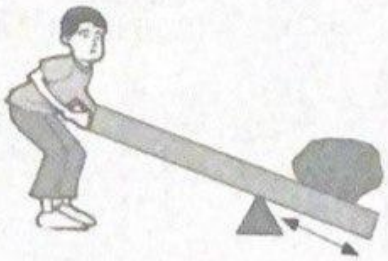
Rajah 6
Diagram 6

Antara berikut, yang manakah dapat mengalihkan batu besar tersebut dengan mudah?
Which of the following can easily remove the rock?

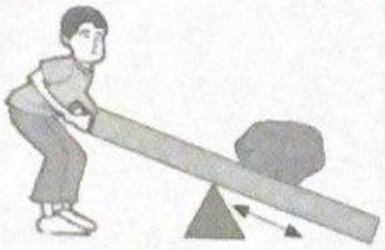
A



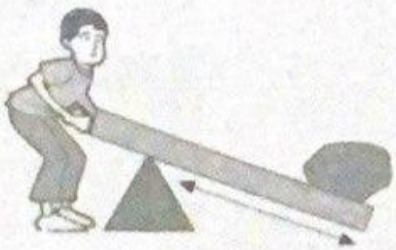
B



C



D



LIVEWORKSHEETS

Untuk Kegunaan Pemeriksa

BAHAGIAN B
[8 *markah*]

1 (*a*) Rajah 1.1 menunjukkan beberapa aktiviti yang dijalankan oleh seorang murid. Padan dan suaikan kadar pernafasan berdasarkan aktiviti yang dilakukan oleh murid tersebut.
Diagram 1.1 *shows several activities conducted by a pupil. Match the breathing rate based on the activity conducted by the pupil.*

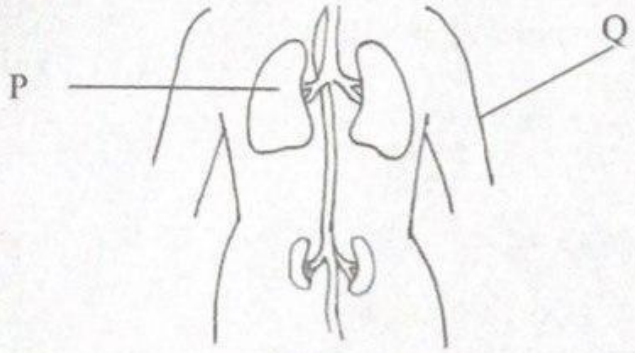
Aktiviti *Activity*	**Kadar pernafasan** *Breathing rate*
Berenang *Swimming* ■	■ Sederhana *Medium*
Berbasikal *Cycling* ■	■ Rendah *Low*
	■ Tinggi *High*

Rajah 1.1
Diagram 1.1

1(*a*) [2]

[2 *markah*]
[2 *marks*]

(*b*) Rajah 1.2 menunjukkan organ P dan Q yang terdapat pada badan manusia.
Diagram 1.2 *shows organs* P *and* Q *on human body.*



Rajah 1.2
Diagram 1.2

Namakan organ P dan Q.
Name the organs P *and* Q.

Organ *Organ*	P	Q
Nama *Name*		

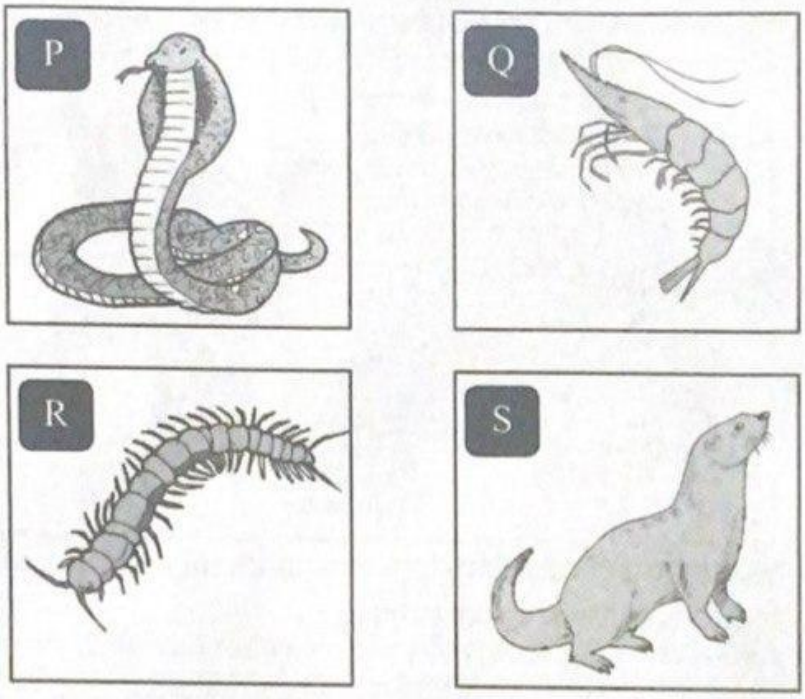
1(*b*) [2]

[2 *markah*]
[2 *marks*]

LIVEWORKSHEETS

Untuk Kegunaan Pemeriksa

2 Rajah 2 menunjukkan empat haiwan.
Diagram 2 shows four animals.



Rajah 2
Diagram 2

(*a*) Kelaskan haiwan dalam Rajah 2 kepada dua kumpulan berdasarkan ciri sepunya dalam jadual di bawah.
Classify the animals in Diagram 2 into two groups based on the same common characteristics in the table below.

Kumpulan 1 *Group 1*	**Kumpulan 2** *Group 2*

[2 *markah*]
[2 *marks*]

2(*a*) 2

(*b*) Nyatakan **satu** ciri sepunya yang digunakan untuk mengelas
State **one** *common characteristic used to classify*

(i) Kumpulan 1 :
Group 1 : _____

(ii) Kumpulan 2 :
Group 2 : _____

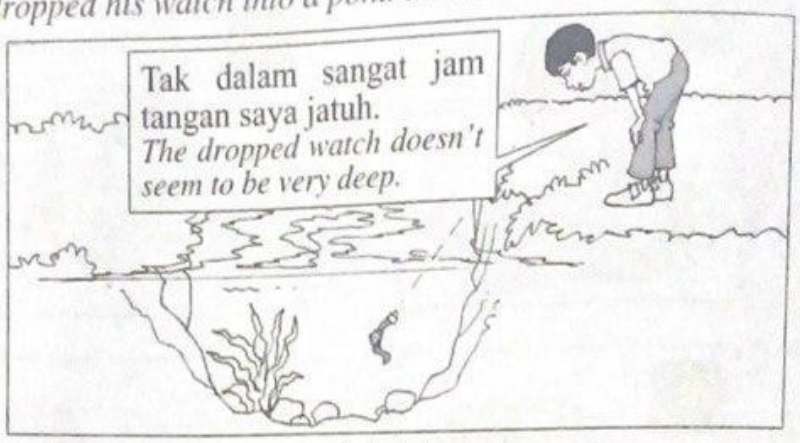
[2 *markah*]
[2 *marks*]

2(*b*) 2

LIVEWORKSHEETS

BAHAGIAN C
[32 *markah*]

1 Ahmad telah terjatuhkan jam tangannya ke dalam sebuah kolam seperti yang ditunjukkan dalam Rajah 1.
Ahmad dropped his watch into a pond as shown in Diagram 1.



Rajah 1
Diagram 1

Ahmad masuk ke dalam kolam tersebut untuk mengambil jam tangannya tanpa menggunakan peralatan renang. *Ahmad entered the pond to take his watch without using swimming tools.*

(*a*) (i) Adakah tindakan Ahmad itu betul?
Is Ahmad's action correct?

Ya *Yes* ☐ Tidak *No* ☐

Berikan alasan kamu.
Give your reason.

_____

[2 *markah*]
[2 *marks*]

(ii) Nyatakan sifat cahaya yang terlibat dalam situasi ini.
State the property of light involved in this situation.

_____

[1 *markah*]
[1 *mark*]

(*b*) Jelaskan alasan kamu di (*a*)(i).
Explain your reason in (*a*)(i).

_____

[3 *markah*]
[3 *marks*]

(*c*) Berikan satu contoh fenomena semula jadi yang melibatkan sifat cahaya di (*a*)(ii).
Give an example of a natural phenomenon that involves the property of light in (*a*)(ii).

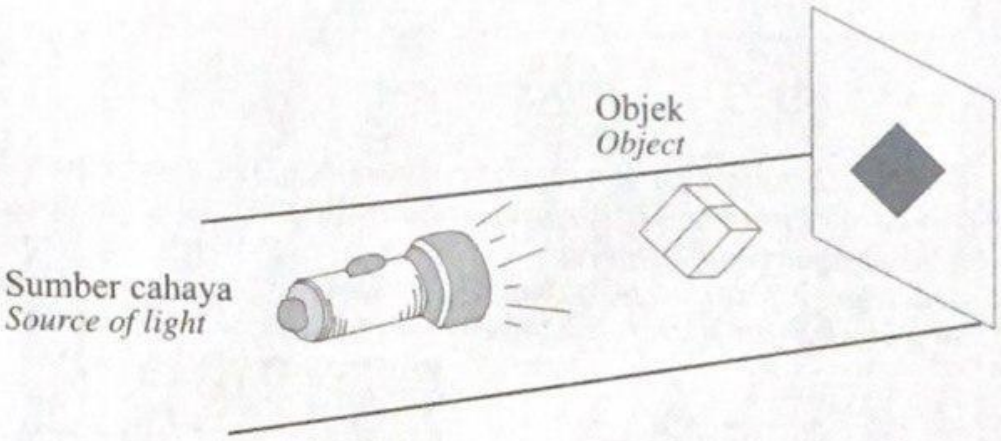
_____

[1 *markah*]
[1 *mark*]

LIVEWORKSHEETS

2 Amin dan rakan-rakannya menjalankan satu penyiasatan seperti yang ditunjukkan dalam Rajah 2.1. Jadual 1 menunjukkan keputusan penyiasatan yang tidak lengkap.
Amin and his friends are conducting an investigation as shown in Diagram 2.1. Table 1 shows the incomplete result of the investigation.

Untuk Kegunaan Pemeriksa



Rajah 2.1
Diagram 2.1

Jarak di antara objek dengan sumber cahaya (cm) ***Distance between object and source of light*** **(cm)**	30	60	90
Luas bayang-bayang (cm^2) ***Area of shadow*** **(cm^2)**		64	

Jadual 1
Table 1

(*a*) Ramalkan luas bayang-bayang jika jarak di antara objek dengan sumber cahaya ialah
Predict the area of the shadow if the distance between the object and the source of light is

(i) 30 cm: _____

(ii) 90 cm: _____

[2 *markah*]
[2 *marks*]

2(*a*)(i)(ii) 2

(*b*) Nyatakan hipotesis kamu berdasarkan jawapan di (*a*).
State your hypothesis based on the answer in (*a*).

_____

_____

[2 *markah*]
[2 *marks*]

2(*b*) 2

LIVEWORKSHEETS

Untuk Kegunaan Pemeriksa

(*c*) Apakah yang dapat diperhatikan pada skrin jika objek digantikan dengan bongkah kaca jernih? Jelaskan.
What can be observed on the screen if the object is replaced with a clear glass block? Explain.

2(*c*) 2

[2 *markah*]
[2 *marks*]

(*d*) Rajah 2.2 menunjukkan dua bayang-bayang yang terbentuk daripada objek 3-Dimensi yang sama apabila sumber cahaya berada pada kedudukan yang berlainan.
Diagram 2.2 shows two shadows formed by the same 3-Dimensional object when the source of light was placed at different positions.

Rajah 2.2
Diagram 2.2

Apakah objek 3-Dimensi yang mungkin?
What is the possible 3-Dimensional object?

2(*d*) 1

[1 *markah*]
[1 *mark*]

(*e*) Apakah kesimpulan bagi penyiasatan ini?
What is the conclusion for this investigation?

2(*e*) 1

[1 *markah*]
[1 *mark*]

LIVEWORKSHEETS

3 Tiga jenis straw yang berlainan panjang digunakan untuk mengukur panjang meja guru seperti yang ditunjukkan dalam Rajah 3. Jadual 2 menunjukkan keputusan yang diperoleh.
Three types of straw of different length are used to measure the length of the teacher's table as shown in Diagram 3. Table 2 shows the results obtained.

Untuk Kegunaan Pemeriksa

Rajah 3
Diagram 3

Panjang straw *Length of straw*	**Bilangan straw yang diperlukan untuk mengukur panjang meja** *Number of straws needed to measure the length of table*
3 cm	50
6 cm	35
9 cm	20

Jadual 2
Table 2

(*a*) Apakah tujuan penyiasatan ini?
What is the purpose of this investigation?

_____

[1 *markah*]
[1 *mark*]

3(*a*) 1

(*b*) Nyatakan maklumat berikut daripada penyiasatan ini.
State the following information from this investigation.

(i) Apakah pemboleh ubah yang dimanipulasikan?
What is the manipulated variable?

_____

_____

[1 *markah*]
[1 *mark*]

3(*b*)(i) 1

LIVEWORKSHEETS

tuk
gunaan
meriksa

(ii) Apakah pemboleh ubah yang bergerak balas?
What is the responding variable?

_____

_____

[1 *markah*]
[1 *mark*]

3(b)(ii) 1

(c) Ramalkan bilangan straw yang diperlukan jika panjang straw ialah 12 cm.
Predict the number of straws needed if the length of straw is 12 cm.

_____

[1 *markah*]
[1 *mark*]

3(c) 1

(d) Apakah hubungan di antara kedua-dua pemboleh ubah yang dinyatakan di (*b*)?
What is the relationship between the two variables stated in (*b*)*?*

_____

_____

[1 *markah*]
[1 *mark*]

3(d) 1

(e) Nyatakan pemboleh ubah yang perlu ditetapkan dalam penyiasatan ini.
State the variable that need to be kept constant in this investigation.

_____

_____

[1 *markah*]
[1 *mark*]

3(e) 1

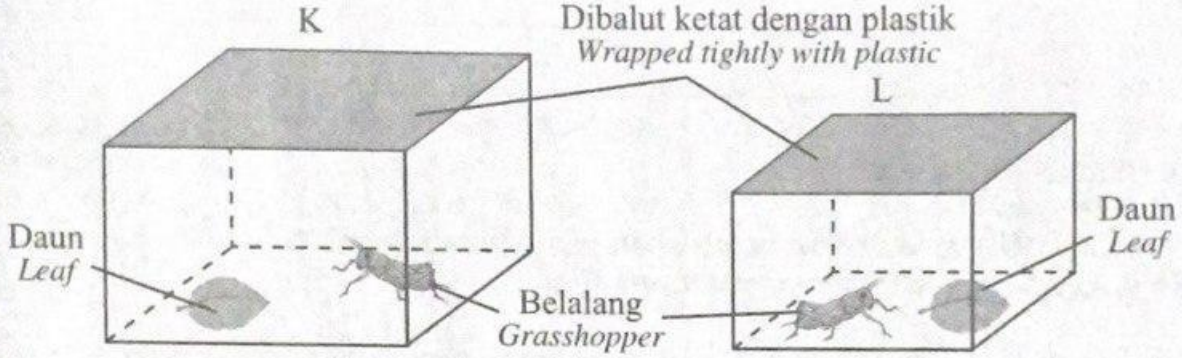
(f) Bina satu carta palang berdasarkan maklumat dalam Jadual 2.
Construct a bar chart based on the information in Table 2.

3(f) 2

LIVEWORKSHEETS

Untuk Kegunaan Pemeriksa

4 Sekumpulan murid memasukkan seekor belalang ke dalam kotak K dan L seperti yang ditunjukkan dalam Rajah 4. Hasil pemerhatian direkodkan.
A group of pupils insert a grasshopper into box K and L as shown in Diagram 4. The observation is recorded.



Rajah 4
Diagram 4

Pemerhatian:
Observation:

Kotak K *Box K*	**Kotak L** *Box L*
Belalang mati selepas 12 jam. *Grasshopper dies after 12 hours.*	Belalang mati selepas 8 jam. *Grasshopper dies after 8 hours.*

(*a*) (i) Adakah belalang merupakan haiwan vertebrata?
Is grasshopper a vertebrate?

Ya *Yes* ☐ Tidak *No* ☐

[1 *markah*]
[1 *mark*]

4(*a*)(i) 1

(ii) Berikan alasan kamu.
Give your reason.

_____

_____

[1 *markah*]
[1 *mark*]

4(*a*)(ii) 1

(*b*) Nyatakan **dua** inferens berdasarkan penyiasatan ini.
State **two** *inferences based on this investigation.*

(i) _____

(ii) _____

[2 *markah*]
[2 *marks*]

4(*b*)(i)(ii) 2

LIVEWORKSHEETS

Untuk Kegunaan Pemeriksa

(*c*) Dalam penyiasatan ini,
In this investigation,

(i) apakah pemboleh ubah yang dimanipulasikan?
what is the manipulated variable?

4(*c*)(i) 1

[1 *markah*]
[1 *mark*]

(ii) apakah pemboleh ubah yang dimalarkan?
what is the constant variable?

4(*c*)(ii) 1

[1 *markah*]
[1 *mark*]

(iii) apakah pemboleh ubah yang bergerak balas?
what is the responding variable?

4(*c*)(iii) 1

[1 *markah*]
[1 *mark*]

(*d*) Nyatakan kesimpulan yang boleh dibuat daripada penyiasatan ini.
State the conclusion that can be made from this investigation.

4(*d*) 1

[1 *markah*]
[1 *mark*]

(*e*) Apakah organ pernafasan bagi belalang?
What is the breathing organ of grasshoppers?

4(*e*) 1

[1 *markah*]
[1 *mark*]

LIVEWORKSHEETS