

- /1 Diagram 1 shows a leaf.
Rajah 1 menunjukkan sehelai daun.



Diagram 1
Rajah 1

Which of the following measuring tools can be used to measure the area of the leaf?
Di antara alat-alat pengukur berikut, yang manakah boleh digunakan untuk mengukur luas permukaan daun?

- | | |
|---|---|
| A An opisometer
<i>Opisometer</i> | C A length of thread
<i>Seutas benang</i> |
| B External calipers
<i>Angkup luar</i> | D A piece of graph paper
<i>Sekeping kertas graf</i> |
- 2 Diagram 2 shows four similar marbles are put into a measuring cylinder containing marble P
Rajah 2 menunjukkan empat guli yang serupa dimasukkan ke dalam satu silinder penyukat mengandungi guli P

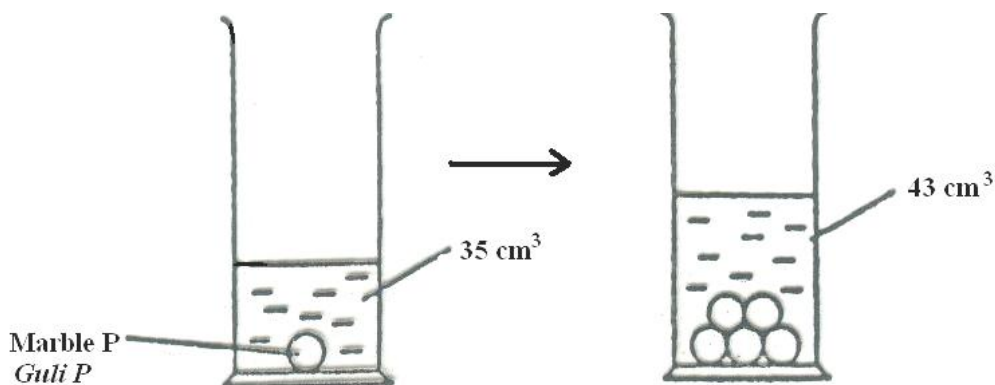


Diagram 2
Rajah 2

What is the volume of each marble?
Apakah isipadu bagi setiap guli?

- | | |
|-----------------------|-----------------------|
| A 1.6 cm ³ | C 3.0 cm ³ |
| B 2.0 cm ³ | D 3.6 cm ³ |

- 3 Which cell structure is correctly matched with its function?
Struktur sel yang manakah betul dipadankan dengan fungsinya?

	Cell structure <i>Struktur sel</i>	Cell function <i>Fungsi sel</i>
A	Nucleus <i>Nukleus</i>	Stores food <i>Menyimpan makanan</i>
B	Vacuole <i>Vakuol</i>	Captures light energy <i>Memerangkap tenaga cahaya</i>
C	Cell wall <i>Dinding sel</i>	Maintains the shape of the cell <i>Mengekalkan bentuk sel</i>
D	Cell membrane <i>Sel membrane</i>	Transports water into the cell <i>Mengangkut air ke dalam sel</i>

- 4 Diagram 3 shows plasticine X that sinks in a basin of water. Plasticine X is modelled into a shape as plasticine Y.
Rajah 3 menunjukkan plastisin X yang tenggelam dalam besen air. Plastisin X itu dibentuk seperti plastisin Y

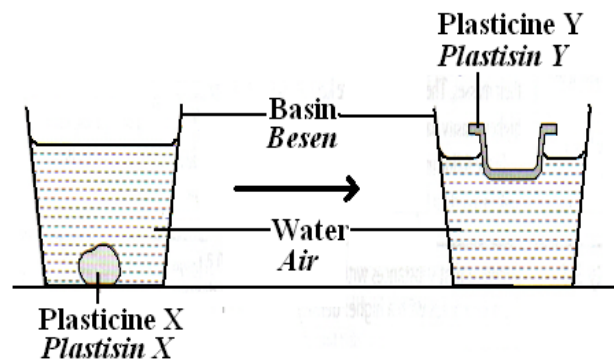


Diagram 3
Rajah 3

Why does the plasticine Y float on the surface of the water?
Mengapakah plastisin Y itu terapung di atas permukaan air?

- A Plasticine Y is lighter than water
Plastisin Y lebih ringan daripada air
- B Plasticine Y is less dense than water
Plastisin Y kurang tumpat daripada air
- C Plasticine Y is bigger than the plasticine X
Plastisin Y lebih besar daripada plastisin X
- D Plasticine X is less dense than plasticine Y
Plastisin X kurang tumpat daripada plastisin Y

- 5 The following shows some substances and their contents.

Which of the following is correct?

Berikut adalah beberapa bahan dan kandungannya.

Antara berikut, yang manakah benar?

	Substance <i>Bahan</i>	Contents <i>Kandungan</i>
A	Carbohydrate <i>Karbohidrat</i>	Carbon, oxygen <i>Karbon, oksigen</i>
B	Iron oxide <i>Besi oksida</i>	Iron, carbon <i>Besi, karbon</i>
C	Limestone <i>Batu kapur</i>	Calcium, carbon, <i>Kalsium, karbon</i>
D	Sodium chloride <i>Natrium klorida</i>	Sodium, chlorine <i>Natrium, klorin</i>

- 6 Which of the following keeps the air clean?

Antara berikut, yang manakah mengekalkan udara bersih?

- A Cycle to school
Berbasikal ke sekolah
- B Allow open burning
Membenarkan pembakaran terbuka
- C Smoke in designated areas
Merokok di tempat yang dihaskan
- D Play fire crackers during festivals
Bermain mercun pada waktu perayaan

- 7 Which of the following shows the correct match between the components of air and their percentage?

Di antara berikut yang manakah menunjukkan padanan yang betul bagi kandungan udara dengan peratusnya?

	Components of air <i>Kandungan udara</i>	Percentage % <i>Peratus %</i>
A	Oxygen / <i>Oksigen</i>	78 %
B	Nitrogen / <i>Nitrogen</i>	20 %
C	Inert gases / <i>Gas nadir</i>	0.97 %
D	Carbon dioxide / <i>Karbon dioksida</i>	0.33 %

- 8 Diagram 4 shows a compressed spring.
Rajah 4 menunjukkan spring yang dimampatkan.

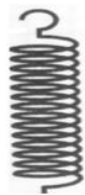


Diagram 4
Rajah 4

Which of the following has the same form of energy in the compressed spring?
Antara berikut, manakah mempunyai bentuk tenaga yang sama dengan spring yang dimampatkan?

- A A waterfall
Air terjun
- B A moving car
Kereta bergerak
- C A rotating fan
Kipas berputar
- D A swinging pendulum
Bandul yang berayun
- 9 Diagram 5 shows the changes of state as the temperature of steam decreases.
Rajah 5 menunjukkan perubahan keadaan apabila suhu stim menurun.

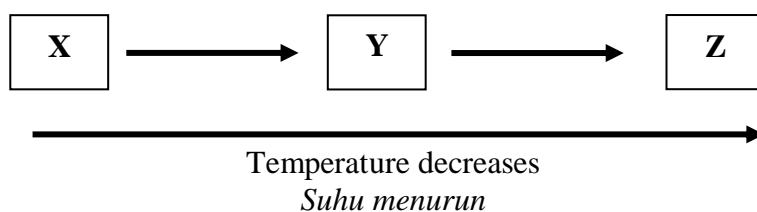


Diagram 5
Rajah 5

What are X, Y and Z?
Apakah X, Y dan Z?

	X	Y	Z
A	Solid / pepejal	Liquid / cecair	Gas / Gas
B	Gas / Gas	Liquid / cecair	Solid / pepejal
C	Gas / Gas	Solid / pepejal	Liquid / cecair
D	Liquid / cecair	Solid / pepejal	Gas / Gas

10 Which part of the ear equalizes the air pressure on both sides of the eardrum?
Bahagian telinga yang manakah mengimbangi tekanan udara di kedua-dua belah gegendang telinga?

- | | |
|-----------------------------|---|
| A Ossicles
<i>Osikel</i> | C Eustachian tube
<i>Tiub Eustachio</i> |
| B Cochlea
<i>Koklea</i> | D Semicircular canals
<i>Salur separuh bulat</i> |

11 Diagram 6 shows the results of an activity.
Rajah 6 menunjukkan keputusan suatu aktiviti.

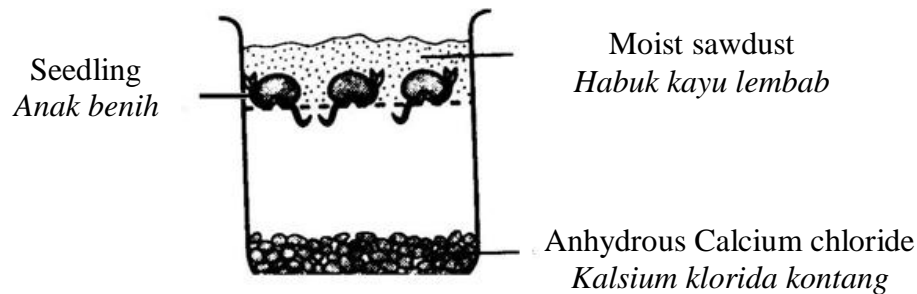


Diagram 6
Rajah 6

What inference can be made from the observation?
Apakah inferens yang boleh dibuat dari pemerhatian ini?

- A Roots curve upward because calcium hydroxide is dry
Akar melengkung ke atas kerana kalsium hidroksida adalah kering
- B Roots curve upward because sawdust contains water
Akar melengkung ke atas kerana habuk kayu mengandungi air
- C Roots curve upward because there is no water in the beaker
Akar melengkung ke atas kerana ketiadaan air di dalam bikar
- D Roots curve upward because sawdust has a suitable temperature
Akar melengkung ke atas kerana habuk kayu mempunyai suhu yang sesuai

12 When does land breeze occur?

Bilakah bayu darat berlaku?

A During the day
Waktu siang

B Hot air above the land rises
Udara panas naik dari darat

C The air flows from the sea to the land
Udara mengalir dari laut ke darat

D When the land cools faster than the sea
Apabila darat menyejuk lebih cepat daripada laut

13 Table 1 shows the results of food tests done on a food sample X.

Jadual 1 menunjukkan keputusan ujian makanan yang dijalankan ke atas satu sampel makanan X.

Food test <i>Ujian Makanan</i>	Results <i>Keputusan</i>
Iodine test. <i>Ujian iodin</i>	It turns dark blue <i>Bertukar kepada biru tua</i>
Millon's reagent test. <i>Ujian reagen Millon .</i>	Red precipitate is formed <i>Mendakan merah terbentuk</i>

Table 1
Jadual 1

Which sources of food contain the same classes of food as in sample X?

Sumber makanan yang manakah mengandungi kelas makanan yang sama dengan sampel makanan X?

A Fish and meat
Ikan dan daging

B Banana and jam
Pisang dan jem

C Rice and Egg
Nasi dan telur

D Bread and butter
Roti dan mentega

- 14 Diagram 7 shows the human digestive system.
Rajah 7 menunjukkan sistem pencernaan manusia.

Where does the digestion of protein begin?
Di manakah pencernaan protein bermula?

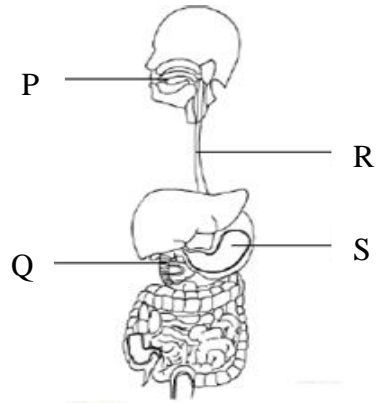


Diagram 7
Rajah 7

- A P
B Q
C R
D S
- 15 Diagram 8 shows the interaction between a bird and a buffalo.
Rajah 8 menunjukkan interaksi antara burung dan kerbau.

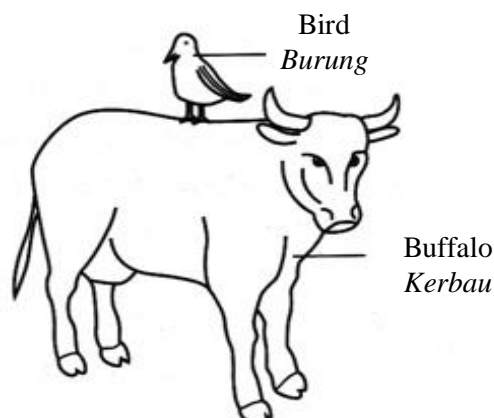


Diagram 8
Rajah 8

What is the name of this interaction?
Apakah nama jenis interaksi ini?

- A Mutualism
Mutualisme
B Parasitism
Parasitisme
C Competition
Persaingan
D Commensalism
Komensalisme

- 16 Table 2 shows the characteristics of plants.
Jadual 2 menunjukkan ciri-ciri tumbuhan.




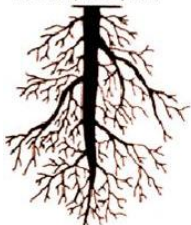
Characteristics <i>Ciri-ciri</i>	Plant <i>Tumbuhan</i>	
	M	N
Leaf <i>Daun</i>		
Root <i>Akar</i>		

Table 2
Jadual 2

Which of the following represent plant M and N?
Manakah antara berikut mewakili tumbuhan M dan N?

	M	N
A	Maize plant <i>Tumbuhan jagung</i>	Orchid plant <i>Tumbuhan orkid</i>
B	Mangosteen tree <i>Pokok manggis</i>	Lime tree <i>Pokok limau nipis</i>
C	Rambutan tree <i>Pokok rambutan</i>	Coconut tree <i>Pokok kelapa</i>
D	Paddy plant <i>Tumbuhan padi</i>	Balsam plant <i>Tumbuhan keembung</i>

- 17 Diagram 9 shows a food chain.
Rajah 9 menunjukkan satu rantai makanan.

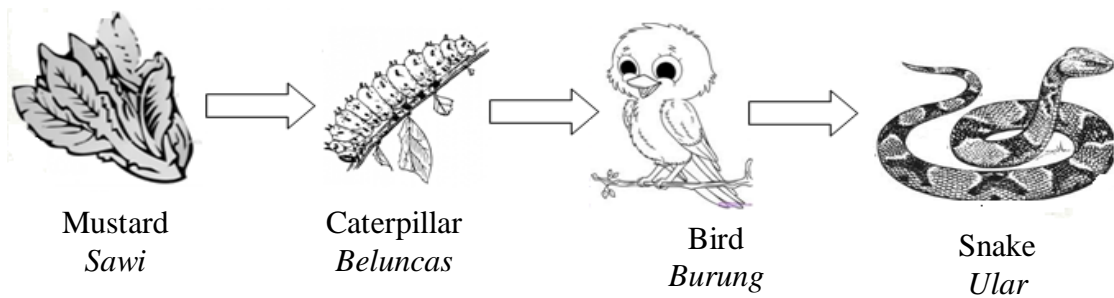


Diagram 9
Rajah 9

What will happen if all the caterpillars are destroyed?
Apakah yang akan berlaku jika semua ulat beluncas dihapuskan?

- A The production of mustard decreases
Hasil sawi berkurangan
- B Bird migrates to another place
Burung berhijrah ke tempat lain
- C The population of snake increases
Populasi ular bertambah
- D Snake eats the mustard
Ular memakan sawi
- 18 Table 3 shows the pH values of substances R, S, T, U and V.
Jadual 3 menunjukkan nilai pH bahan R, S, T, U dan V.

Substance <i>Bahan</i>	R	S	T	U	V
pH value <i>Nilai pH</i>	4	5	7	9	13

Table 3
Jadual 3

Which of the following mixtures can produce a salt solution?
Manakah antara campuran berikut boleh menghasilkan satu larutan garam?

- A S and U
S dan U
- B S and V
S dan V
- C R and V
R dan V
- D R and U
R dan U

- 19 Diagram 10 shows a boy drinking orange juice from a straw.
Rajah 10 menunjukkan seorang budak lelaki minum jus oren dengan penyedut minuman.

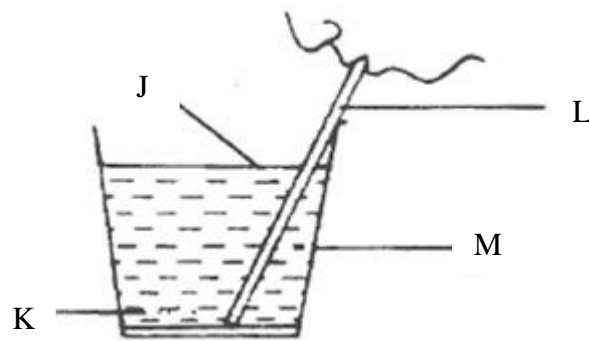


Diagram 10
Rajah 10

Which part has the lowest pressure?

Bahagian manakah mempunyai tekanan yang paling rendah?

- | | | | |
|---|---|---|---|
| A | J | C | L |
| B | K | D | M |

- 20 Diagram 11 shows Ahmad pulling his luggage with a force of 400 N for a distance of 6.0 m for 1 minute.
Rajah 11 menunjukkan Ahmad menarik bagasi dengan daya 400 N sejauh 6.0 m selama 1 minit

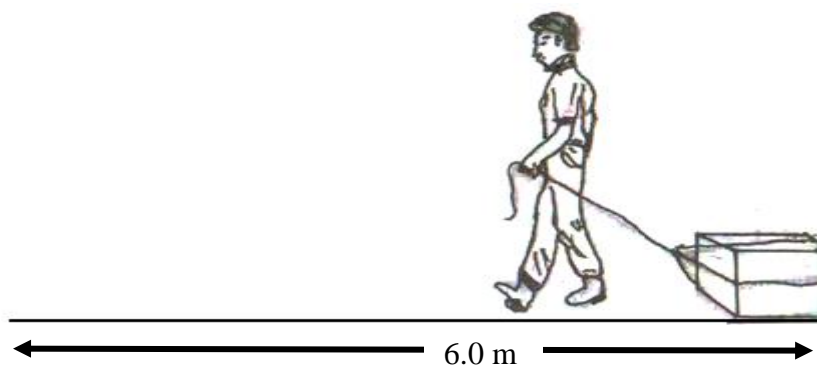


Diagram 11
Rajah 11

Calculate the power of Ahmad.

Kirakan kuasa Ahmad.

- | | | | |
|---|------|---|------|
| A | 80 W | C | 40 W |
| B | 60 W | D | 20 W |

- 21 Diagram 12 shows the support system in an organism.
Rajah 12 menunjukkan sistem sokongan pada satu organisma.



Diagram 12
Rajah 12

Name the above support system.
Namakan sistem sokongan tersebut di atas.

- | | | | |
|---|-------------------------------------|---|---|
| A | Endoskeleton
<i>Rangka dalam</i> | C | Buoyancy
<i>Daya keapungan</i> |
| B | Exoskeleton
<i>Rangka luar</i> | D | Hydrostatic skeleton
<i>Rangka hidrostatik</i> |
- 22 Diagram 13 shows a type of plant.
Rajah 13 menunjukkan sejenis tumbuhan.



Diagram 13
Rajah 13

What is its support system?
Apakah sistem sokongannya?

- | | | | |
|---|-------------------------------------|---|------------------------------------|
| A | Woody tissue
<i>Tisu berkayu</i> | C | Tendrils
<i>Sulur paut</i> |
| B | Turgidity
<i>Kesegahan sel</i> | D | Prop roots
<i>Akar sokongan</i> |

- 23 Diagram 14 shows three models X, Y and Z.
Rajah 14 menunjukkan tiga model X, Y dan Z.

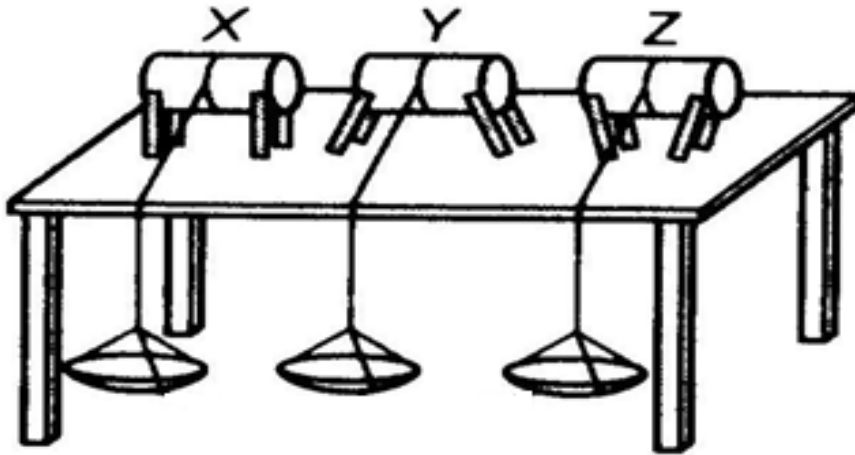


Diagram 14
Rajah 14

Table 4 shows the number of weights needed to topple the models.
Jadual 4 menunjukkan bilangan pemberat yang perlu untuk menumbangkan model-model itu.

Model Model	X	Y	Z
Number of weights needed Bilangan pemberat yang perlu	9	P	3

Table 4
Jadual 4

Predict the value of P?
Ramalkan nilai P?

- A 4
B 6
C 8
D 12

- 24 Diagram 15 shows a stapler. Which of the following belongs to the same class of lever of the stapler?

Rajah 15 menunjukkan stapler. Di antara tuas berikut, yang manakah sama kelasnya dengan 'stapler' tersebut?

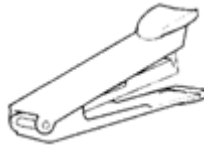


Diagram 15
Rajah 15

- | | |
|---|---|
| A Pair of scissors
<i>Gunting</i> | C Ice tongs
<i>Penyepit ais</i> |
| B Wheel barrow
<i>Kereta sorong</i> | D Paper cutter
<i>Pemotong kertas</i> |
- 25 Diagram 16 shows a structure in the human respiratory system.
Rajah 16 menunjukkan satu struktur dalam sistem pernafasan manusia.

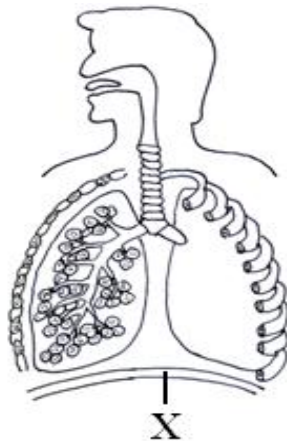


Diagram 16
Rajah 16

What happens to X during inhalation?

Apakah berlaku pada X semasa menarik nafas?

- | | |
|---|--|
| A Contracts and flattens
<i>Mengecut dan mendatar</i> | C Relaxes and curves upward
<i>Mengendur dan melengkung ke atas</i> |
| B Relaxes and flattens
<i>Mengendur dan mendatar</i> | D Contracts and curves upward
<i>Mengecut dan melengkung ke atas</i> |

- 26 Diagram 17 shows a model of the human breathing mechanism.
Rajah 17 menunjukkan sebuah model sistem pernafasan manusia.

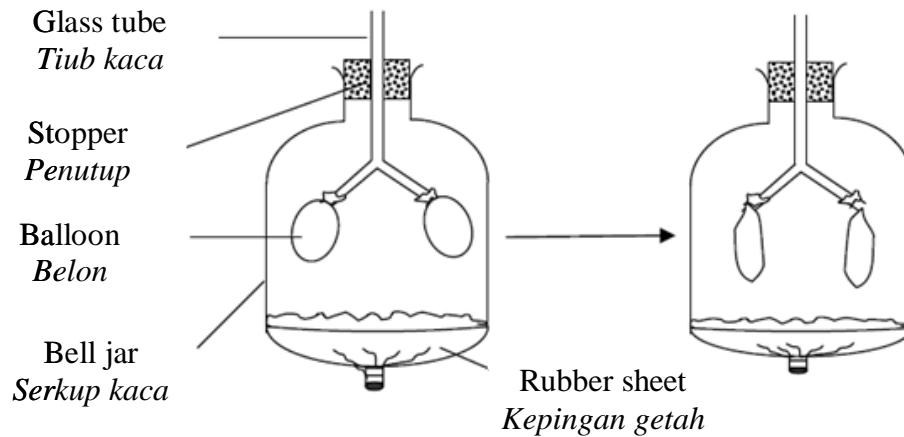


Diagram 17
Rajah 17

What causes the change in the balloons as shown in Diagram 17?
Apakah yang menyebabkan perubahan pada belon seperti yang ditunjukkan dalam Rajah 17?

- A** Volume of air in the bell jar increases
Isipadu udara di dalam serkup kaca bertambah
- B** Bell jar contracts and curves upward
Serkup kaca mengecut dan melengkung ke atas
- C** Air pressure in the bell jar increases
Tekanan udara di dalam serkup kaca bertambah
- D** Air from the atmosphere is drawn into the bell jar
Udara daripada atmosfera disedut ke dalam serkup kaca

- 27 Diagram 18 shows the cross section of a stem.
Rajah 18 menunjukkan keratan rentas batang pokok.

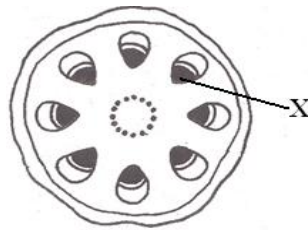


Diagram 18
Rajah 18

What is the function of X?
Apakah fungsi X?

- A** Transports oxygen
Mengangkut oksigen
- B** Stores food
Menyimpan makanan
- C** Transports photosynthesis products
Mengangkut hasil fotosintesis
- D** Transports water and mineral salts
Mengangkut air dan garam mineral
- 28 Table 4 shows four donors with their blood groups.
Jadual 4 menunjukkan empat orang penderma darah dengan kumpulan darah mereka.

Name <i>Nama</i>	Blood group <i>Kumpulan darah</i>
May	A
Caroline	O
Fauziah	AB
Karisma	B

Table 4
Jadual 4

If Fauziah is involved in an accident, who can donate blood to her?
Sekiranya Fauziah terlibat dalam kemalangan, siapakah yang boleh menderma darah kepadanya?

- A** Caroline
Caroline
- B** May and Karisma
May dan Karisma
- C** May and Caroline
May dan Caroline
- D** May, Caroline and Karisma
May, Caroline dan Karisma

- 29 Diagram 19 shows the blood circulation in human body.
Rajah 19 menunjukkan peredaran darah dalam badan manusia.

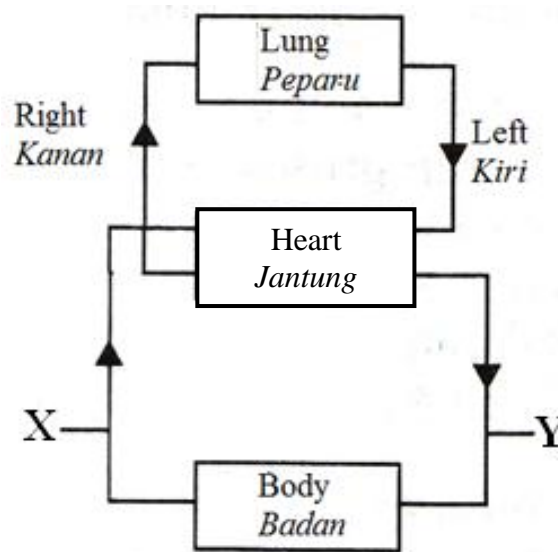


Diagram 19
Rajah 19

- Which statement is correct about blood vessels, X and Y?
Pernyataan manakah adalah benar tentang salur darah, X dan Y?

	X	Y
A	Fast blood flow <i>Aliran darah laju</i>	Slow blood flow <i>Aliran darah perlahan</i>
B	Deoxygenated blood <i>Darah terdeoksigen</i>	Oxygenated blood <i>Darah beroksigen</i>
C	High blood pressure <i>Tekanan darah tinggi</i>	Low blood pressure <i>Tekanan darah rendah</i>
D	Small lumen <i>Lumen kecil</i>	Big lumen <i>Lumen besar</i>

- 30 Diagram 20 shows the female reproductive system.
Rajah 20 menunjukkan sistem pembiakan perempuan.

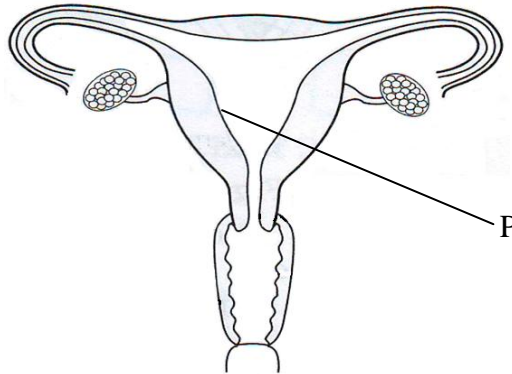


Diagram 20
Rajah 20

What processes occur at P?
Apakah proses yang berlaku di P?

- | | |
|--|---|
| A Ovulation
<i>Pengovulan</i> | C Fertilisation
<i>Persenyawaan</i> |
| B Implantation
<i>Penempelan</i> | D Ligation
<i>Ligasi</i> |
- 31 Diagram 21 shows the development of an embryo into a foetus.
Rajah 21 menunjukkan perkembangan embrio kepada fetus.

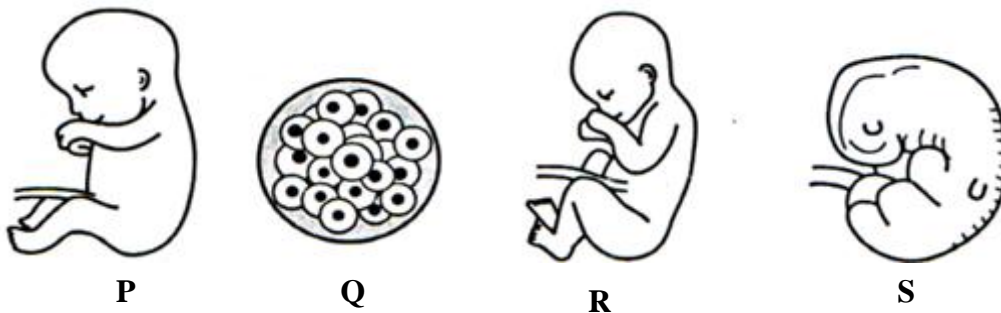


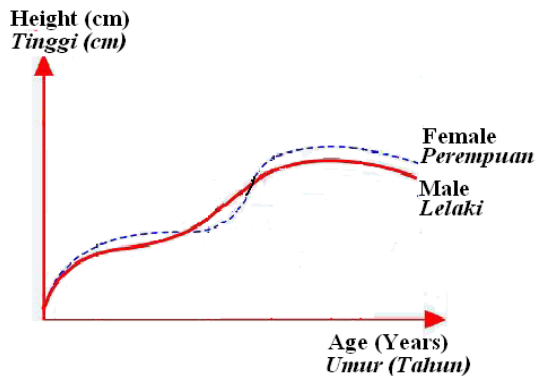
Diagram 21
Rajah 21

Which sequence is correct?
Urutan yang manakah betul?

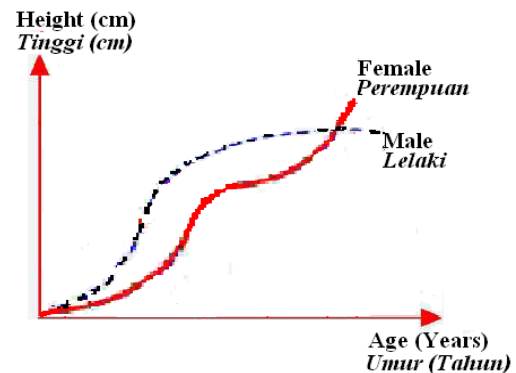
- | | |
|---------------------|---------------------|
| A Q, R, S, P | C Q, R, P, S |
| B Q, P, R, S | D Q, S, P, R |

- 32 Which of the following graphs shows the correct growth curves for male and female?
Graf yang manakah berikut menunjukkan lengkungan pertumbuhan yang betul bagi lelaki dan perempuan?

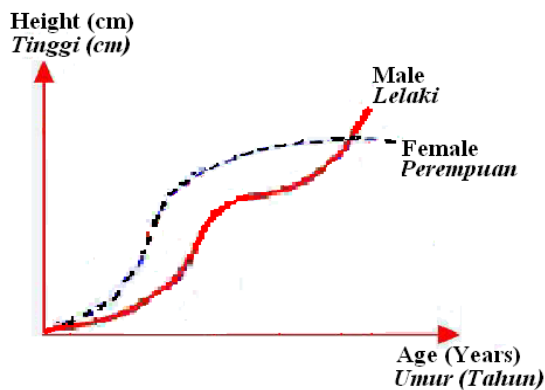
A



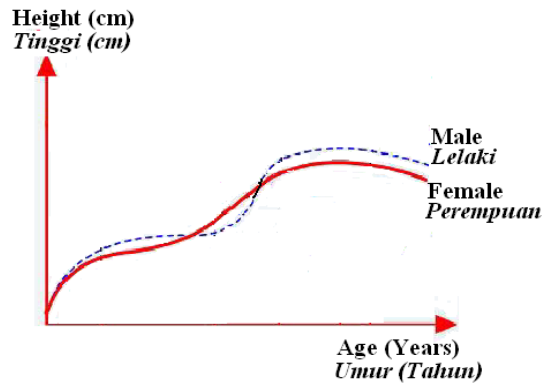
C



B



D



- 33 Which of the following compounds does not decompose when heated strongly?
Antara sebatian berikut, yang manakah tidak terurai apabila dipanaskan dengan kuat ?

- A Zinc oxide
Zink oksida
- B Lead sulphide
Plumbum sulfida
- C Copper carbonate
Kuprum karbonat
- D Calcium carbonate
Kalsium karbonat

- 34 Diagram 22 shows the heating of zinc with sulphur.
Rajah 22 menunjukkan pemanasan zink dengan sulphur.

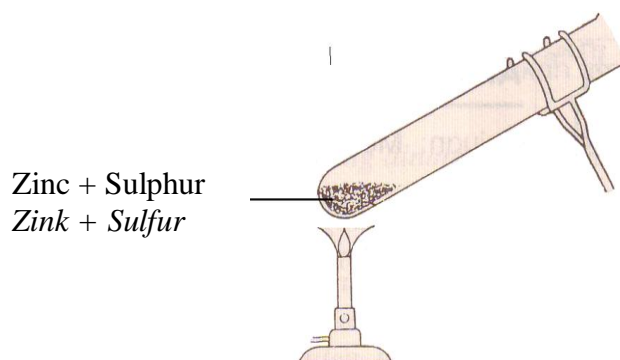


Diagram 22
Rajah 22

What is formed when zinc reacts with sulphur?
Apakah terbentuk apabila zink bertindakbalas dengan sulfur?

- | | |
|---|--|
| <p>A Zinc oxide
<i>Zink oksida</i></p> <p>B Zinc sulphide
<i>Zink sulfida</i></p> | <p>C Zinc carbonate
<i>Zink karbonat</i></p> <p>D Zinc sulphate
<i>Zink sulfat</i></p> |
|---|--|

- 35 Which of the following electric components is matched correctly with its symbol?
Antara komponen elektrik berikut, yang manakah dipadan secara betul dengan simbolnya?

	Component <i>Komponen</i>	Symbol <i>Simbol</i>
A	Battery <i>Bateri</i>	
B	Voltmeter <i>Voltmeter</i>	
C	Resistor <i>Perintang</i>	
D	Switch <i>Suis</i>	

- 36 Diagram 23 shows a transformer.
Rajah 23 menunjukkan sebuah transformer.

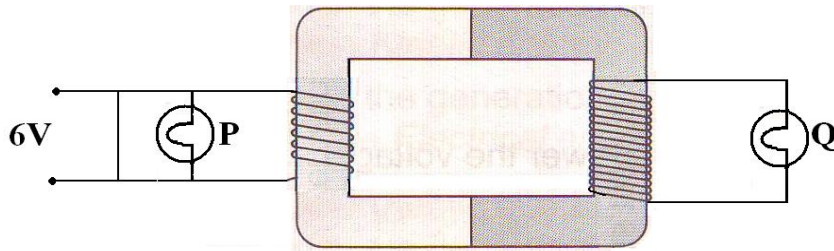


Diagram 23
Rajah 23

Which of the following statements is true?
Antara pernyataan berikut, yang manakah benar?

- A Bulb P is brighter than bulb Q
Mentol P lebih terang daripada mentol Q
 - B Bulb Q is brighter than bulb P
Mentol Q lebih terang daripada mentol P
 - C Bulb Q has voltage of 3 V
Mentol Q mempunyai voltan 3 V
 - D Bulb P and Q are equals bright
Mentol P dan Q sama terang
- 37 Diagram 24 shows a washing machine with a power rating of 960 W 240V.
Rajah 24 menunjukkan sebuah mesin basuh dengan kuasa 960 W 240 V.

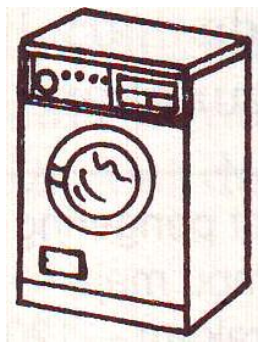


Diagram 24
Rajah 24

Calculate current flowing through a washing machine.
Kirakan arus yang mengalir melalui mesin basuh itu.

- A 3A
- B 4A
- C 5A
- D 6A

- 38 *What is a star?*
Apakah bintang ?
- A** A body in the outer space which gives out its own light and heat.
Satu jasad di angkasa lepas yang menghasilkan cahaya dan haba
 - B** Dot of light shinning in the sky at night
Setitik cahaya yang bersinar di langit pada waktu malam
 - C** A huge solid ball in the outer space
Suatu bola pepejal raksasa di angkasa lepas
 - D** A huge ball of gas in the outer space
Satu bola gas raksasa di angka lepas
- 39 *How is a black hole formed?*
Bagaimana lohong hitam terbentuk?
- A** When a white dwarf dies
Apabila kerdil putih mati
 - B** When a red giant dies
Apabila raksasa merah mati
 - C** When a super giant star dies
Apabila super raksasa merah mati
 - D** When a neutron star dies
Apabila bintang neutron mati

- 40** Diagram 25 shows a human invention used to launch objects for space exploration.
Rajah 25 menunjukkan satu ciptaan manusia diguna untuk melancarkan objek penerokaan angkasa lepas.

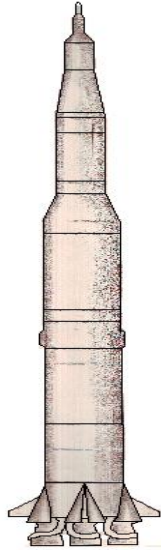


Diagram 25
Rajah 25

What is the invention called?
Apakah nama ciptaan tersebut?

- A** Rocket
Roket
- B** Satellite
Satelit
- C** Space shuttle
Kapal angkasa ulang alik
- D** Space telescope
Teleskop angkasa