

Soalan-soalan nombor 7 dan 8

6. Diagram 6.1 shows a three - pin plug
Rajah 6.1 menunjukkan palam tiga pin.

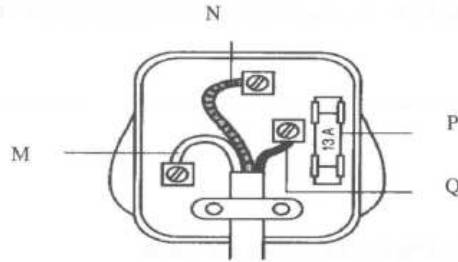


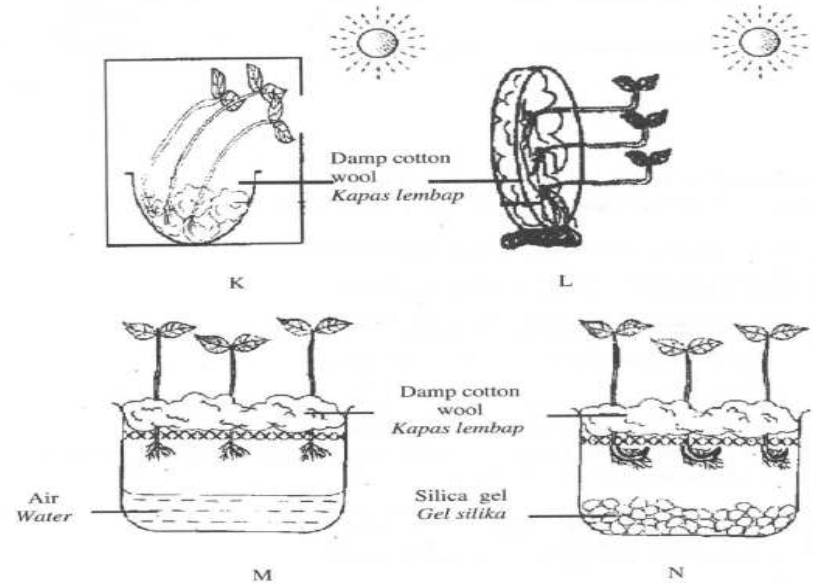
Diagram 6.1
Rajah 6.1

- (a) (i) Which of the parts M,N,P and Q are the safety features of the plug ?
Antara bahagian M,N,P dan Q yang manakah merupakan ciri-ciri keselamatan bagi sebuah palam 3 pin ?

- (ii) What is the function of the part labelled Q ?
Apakah fungsi bahagian yang berlabel Q ?

- (iii) An electrical iron is marked 3000W and 240 V.
 What is the suitable fuse to be used in this electrical appliance ?
Sebuah seterika elektrik bertanda 3000W dan 240V.
Apakah nilai fius yang sesuai digunakan bagi peralatan elektrik tersebut ?

- 7 (a) Diagram 7.1 shows the response of seedling K, L, M and N to stimuli.
Rajah 7.1 menunjukkan gerakbalas anak benih K, L, M dan N terhadap ransangan.

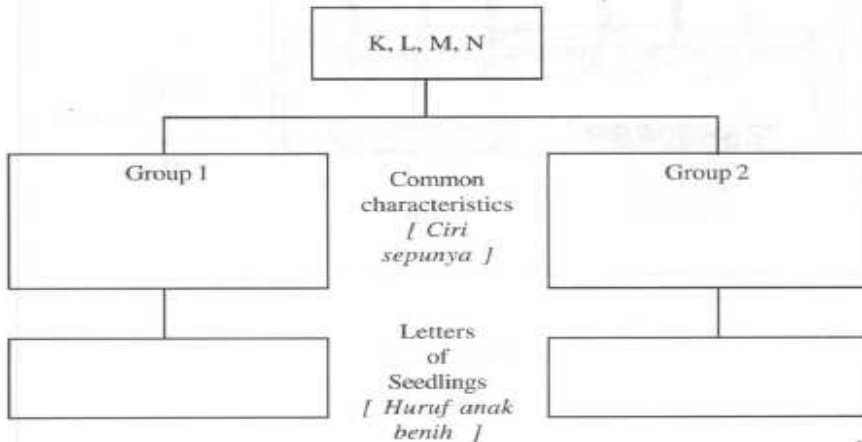


- State **one** observation that can be made from any of the **four** seedlings by referring to the response of their root or shoot to stimuli.
*Nyatakan **satu** pemerhatian yang boleh diperhatikan daripada mana-mana **empat** anak benih dengan merujuk kepada gerak balas akar atau pucuk pada ransangan.*

Seedlings [Anak benih]	Characteristic [Ciri]

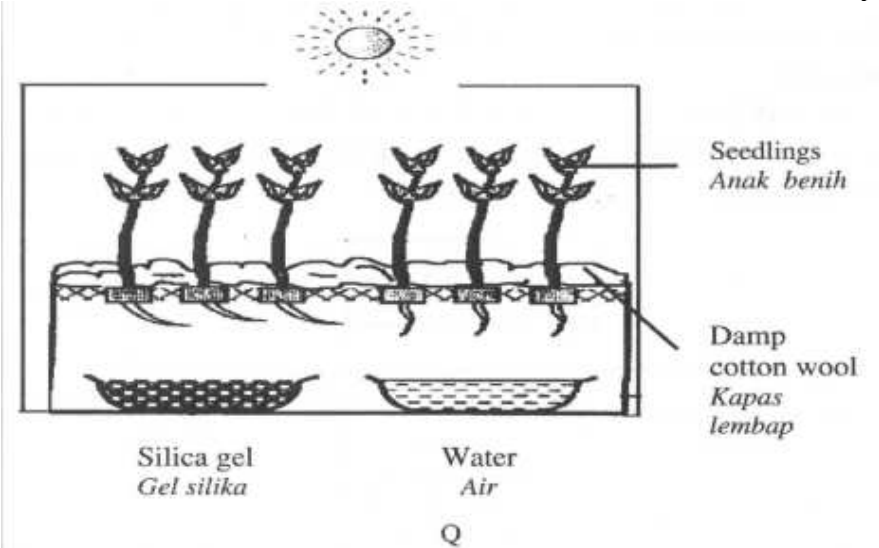
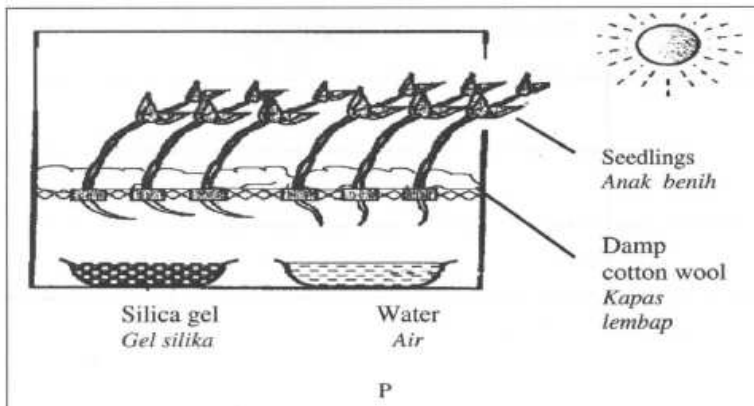
(b) Classify the seedlings K, L, M, and N in Diagram 7.1 into two groups based on their common characteristics. Write the letters of the seedlings belonging to each group.

Kelaskan anak benih K , L , M dan N di Rajah 7.1 kepada dua kumpulan berdasarkan ciri-ciri sepunya. Tuliskan huruf bagi setiap anak benih pada setiap kumpulan.



(c) Diagram 7.2 shows the response of shoot of seedlings P and Q towards stimuli.

Rajah 7.2 menunjukkan gerak balas pucuk bagi anak benih P, dan Q terhadap ransangan.



Based on Diagram 7.2,
Berdasarkan Rajah 7.2,

(i) State one inference based on the response of P.
Nyatakan satu inferens berdasarkan anak benih P.

.....

(ii) Predict what will happen to the shoot of seedling P when placed in a box with a hole on the left side.
Ramalkan apa yang berlaku pada pucuk anak benih P apabila kotak itu berlubang di bahagian kiri.

.....

- (iii) Roots of seedling respond to water. State what is the effect when anhydrous calcium chloride is used to replace water.
Akar anak benih bergerak balas pada ransangan air. Nyatakan apakah kesannya apabila kalsium klorida kontang digunakan untuk menggantikan air.

8. (a) Diagram 8.1 shows a man boiling some water using different types of pots.
Rajah 8.1 menunjukkan seorang lelaki sedang mendidihkan air menggunakan jenis periuk yang berbeza.

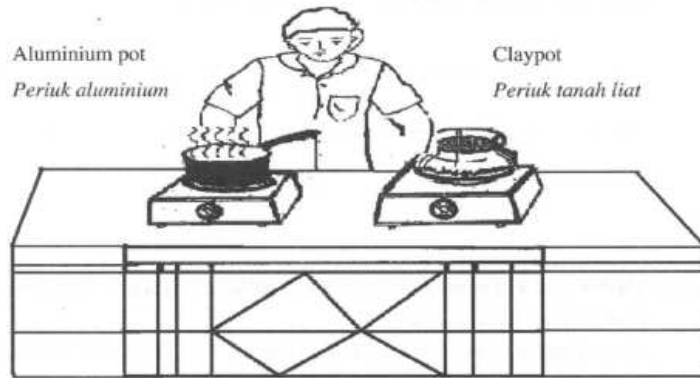


Diagram 8.1

After 20 minutes, water in the aluminium pot boiled first but not the water in the claypot.
Selepas 20 minit, air dalam periuk aluminium mendidih dahulu tetapi air di dalam periuk tanah liat belum mendidih.

- (i) Based on the observation in Diagram 8.1, state the difference in the hotness of water in the two pots after 20 minutes.

Berdasarkan pemerhatian pada Rajah 8.1, nyatakan perbezaan kepanasan air di dalam dua periuk berikut selepas 20 minit.

- (ii) State **one** inference that can be made based on Diagram 8.1.

Nyatakan satu inferens yang boleh dibuat berdasarkan Rajah 8.1.

- (iii) State your hypothesis based on your observation in Diagram 8.1.

Nyatakan hipotesis anda berdasarkan pemerhatian pada Rajah 8.1.

- (b) Diagram 8.2 shows the apparatus set-up of an experiment to study the conductivity of heat of different types of rods.

Rajah 8.2 menunjukkan susunan radas bagi satu eksperimen untuk mengkaji kekonduksian haba bagi rod yang berlainan.

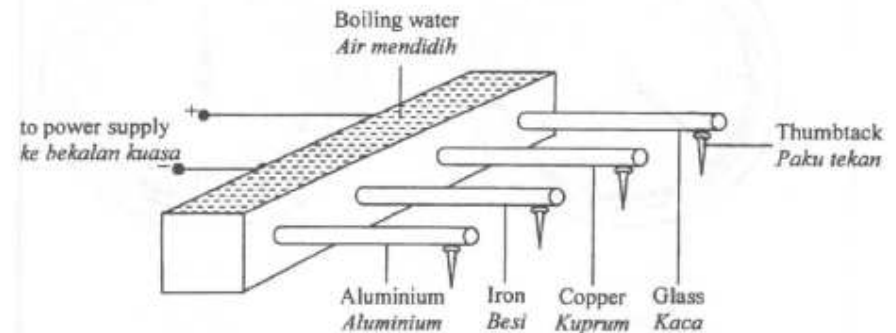
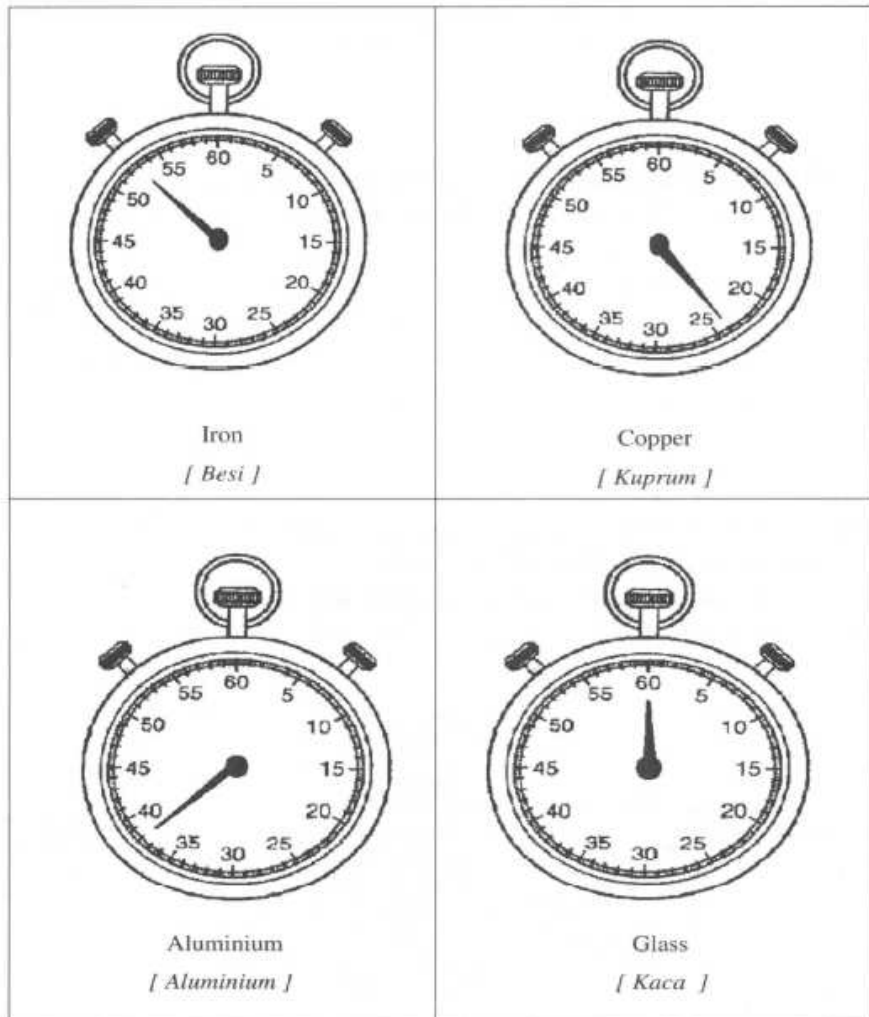


Diagram 8.2

The time taken for each thumbtack to drop is shown by the stop-watches in Diagram 8.3. Masa yang diambil untuk setiap paku tekan jatuh ditunjukkan oleh jam randik dalam Rajah 8.3.



Based on Diagram 8.3, record the readings of the stopwatches in Table 8.4. Berdasarkan Rajah 8.3, rekodkan bacaan jam randik dalam Jadual 8.4.

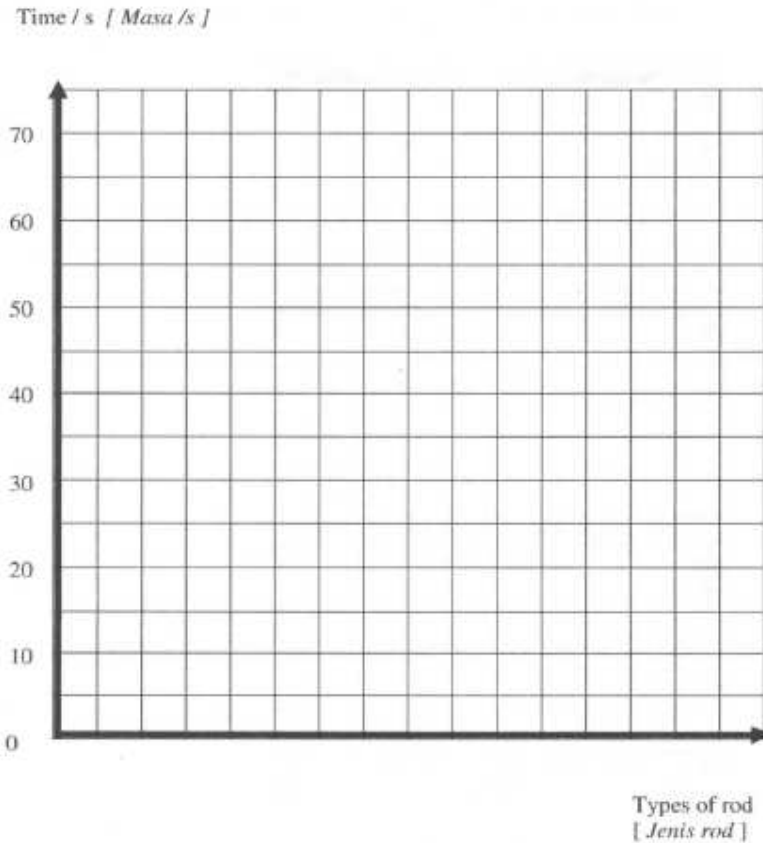
Type of rod [Jenis rod]	Time / s [Masa / s]
 20 cm aluminium rod [Rod aluminium] heat from boiling water [haba dari air mendidih]	
 20 cm iron rod [Rod besi] heat from boiling water [haba dari air mendidih]	
 20 cm copper rod [Rod kuprum] heat from boiling water [haba dari air mendidih]	
 20 cm glass rod [Rod kaca] heat from boiling water [haba dari air mendidih]	60

Table 8.4

The time suggested to complete this section is 30 minutes.

(c) (i) Based on the readings in Table 8.4, draw a bar chart of time against the type of rod.

Berdasarkan bacaan pada Jadual 8.4, lukis carta bar masa melawan jenis rod.



7. Diagram 7 shows an activity to study electrical conductivity of some substances. Rajah 7 menunjukkan satu aktiviti untuk mengkaji kekonduksian elektrik ke atas beberapa bahan

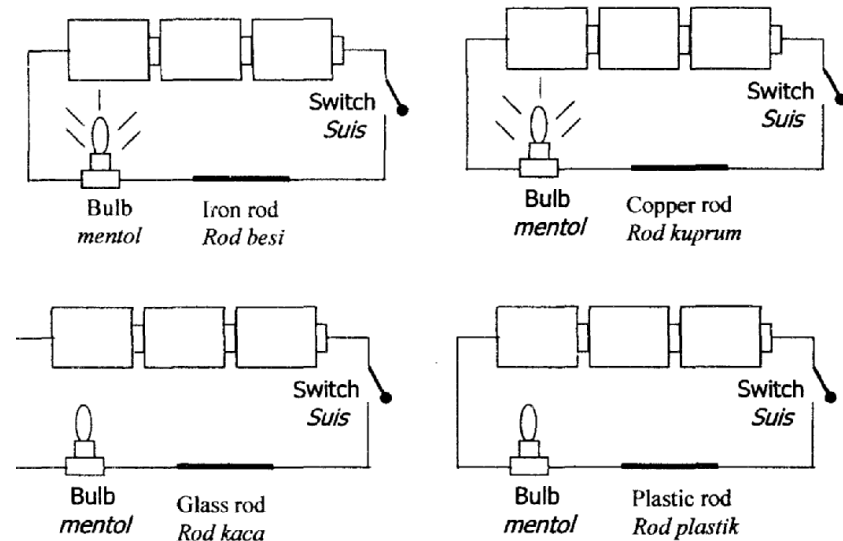


Diagram 7
Rajah 7

(a) Based on the observation in the activity, complete table 7.1
Berdasarkan pemerhatian ke atas aktiviti, lengkapkan jadual 7.1

Substances Bahan	Observation Pemerhatian
Iron rod Rod besi	Bulb lights up Mentol menyala
Copper rod Rod kuprum	
Glass rod Rod kaca	Bulb does not light up Mentol tidak menyala
Plastic rod Rod plastik	

Table 7.1

[2 marks

(b) Based on the observation in table 7.1, state characteristics of the substances
Berdasarkan pemerhatian di dalam jadual 7.1, nyatakan ciri bahan berikut

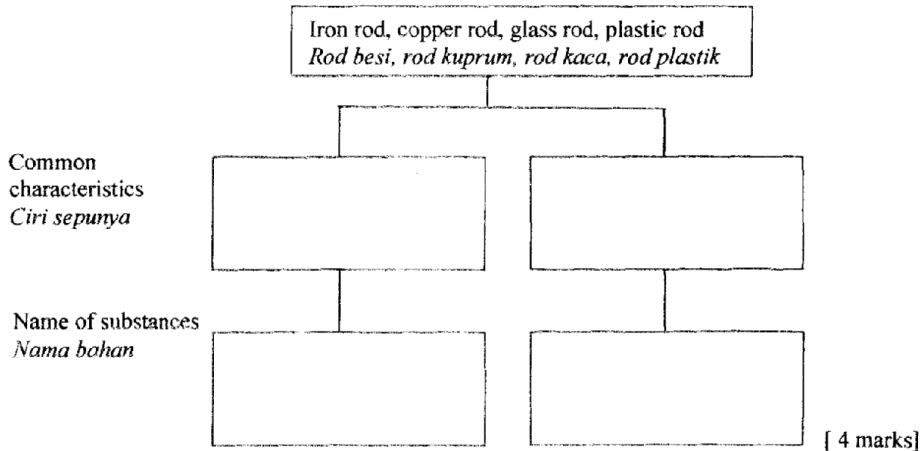
Iron rod :
Rod besi

Plastic rod :
Rod plastik

[2 marks]

(c) Based on your observation in Table 7.1 classify the substance into two groups according to the ability to conduct electricity

Berdasarkan pemerhatian pada jadual 7.1 kelaskan bahan kepada dua kumpulan mengikut keupayaan untuk mengkonduksikan elektrik



(d) State the inference of the activity
Nyatakan inferens aktiviti ini.

[1 mark]

8 (a) Diagram 8.1 shows two glasses of water P and Q containing some sugar
Rajah 8.1 menunjukkan dua gelas air, P dan Q yang mengandungi gula

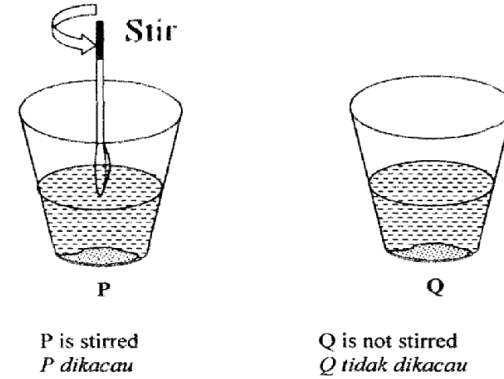


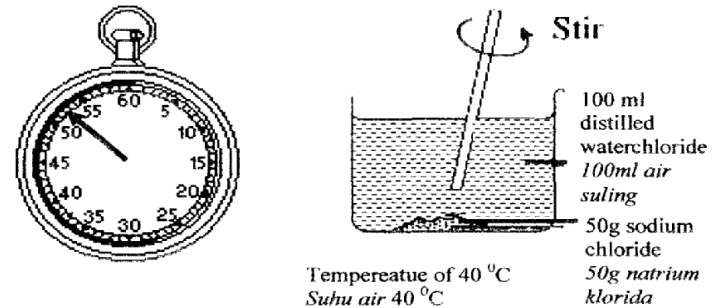
Diagram 8.1
Diagram 8.1

State **one** inference about the sugar in the glass
Nyatakan satu inferens mengenai gula di dalam gelas.

[1 mark]

(b) Diagram 8.2, shows an experiment to study the effect of temperature on the rate of solubility of sodium chloride . Each mixture is stirred at the same rate.

Rajah 8.2 menunjukkan satu eksperimen untuk mengkaji kesan suhu terhadap kadar keterlarutan natrium klorida . Setiap campuran dikacau pada kadar yang sama.



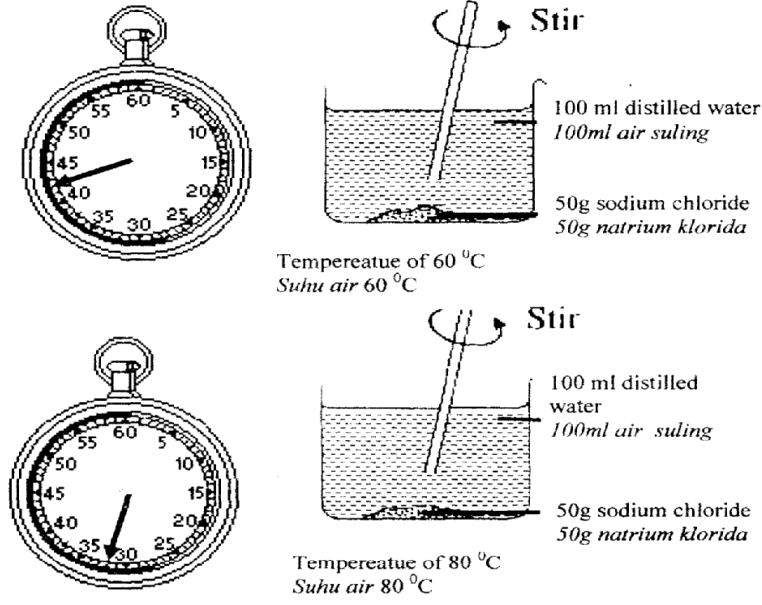


Diagram 8.2
Diagram 8.2

(i) State the variables in this experiment.

Nyatakan pembolehubah dalam eksperimen ini

Manipulated variable <i>Pembolehubah dimanipilasi</i>
Responding variable <i>Pembolehubah bergerakbalas</i>
Fixed variable <i>Pembolehubah malar</i>

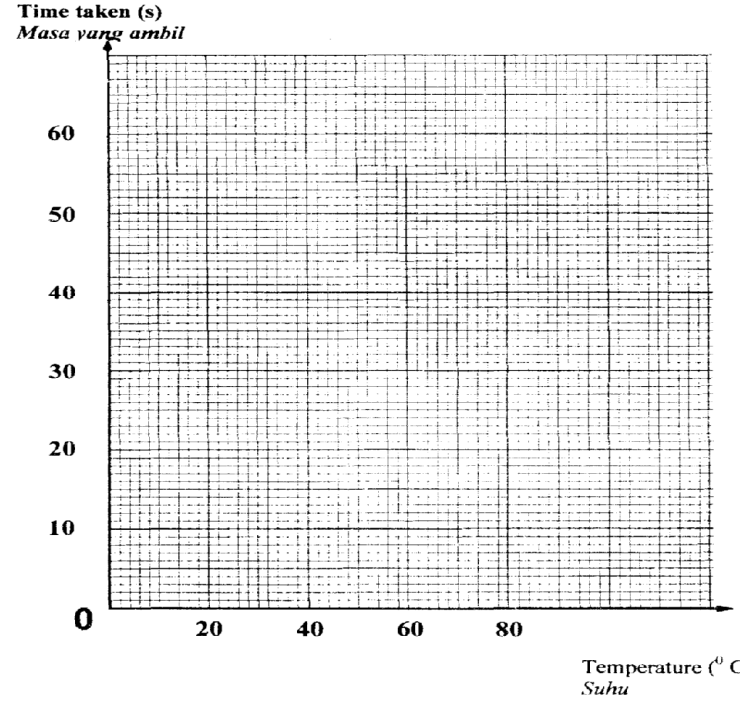
(ii) Complete the time taken for sodium chloride to dissolve in each beaker in Table 8.2.
Lengkapkan masa yang diambil bagi natrium klorida larut dalam di dalam jadual 8.2

Temperature of water (°C) <i>Suhu air</i>	Time taken for sodium chloride to dissolve (s) <i>Masa yang diambil bagi natrium klorida larut</i>
20	62
40	
60	
80	32

Table 8.2

(c) Based on Table 8.2, plot a graph time taken for sodium chloride to dissolve against temperature of water
Berdasarkan jadual 8.2, plotkan graf masa yang diambil untuk natrium klorida larut melawan suhu air

[2 marks]



[2 marks]

- (d) Based on your graph, predict the time taken for sodium chloride to dissolve if the temperature of water is 50°C
Berdasarkan graf anda, ramalkan masa yang diambil bagi natrium klorida larut jika suhu air adalah 50°C

7(d)

[1 mark]

- (e) State the relationship between the temperature of water and the time taken for sodium chloride to dissolve.
Nyatakan hubungan antara suhu air dengan masa yang diambil untuk natrium klorida larut

7(e)

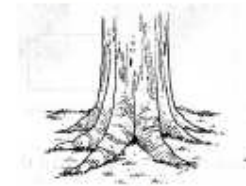
(1 mark)

- (f) Define operationally 'the rate of solubility'?
Definisikan secara operasi 'kadar keterlarutan'?

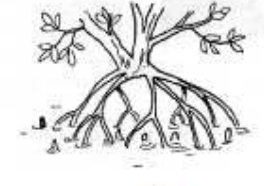
7(f)

(1 mark)

7. Diagram 7 shows four types of plants.
Rajah 7 menunjukkan empat jenis tumbuhan.



P



Q



R



S

Diagram 7
Rajah 7

Observe the plants in Diagram 7. Based on the observations,
Perhatikan tumbuhan dalam Rajah 7. Berdasarkan pemerhatian

- (a) State the type of support system for each of the plants.
Nyatakan jenis sistem sokongan bagi setiap jenis tumbuhan.

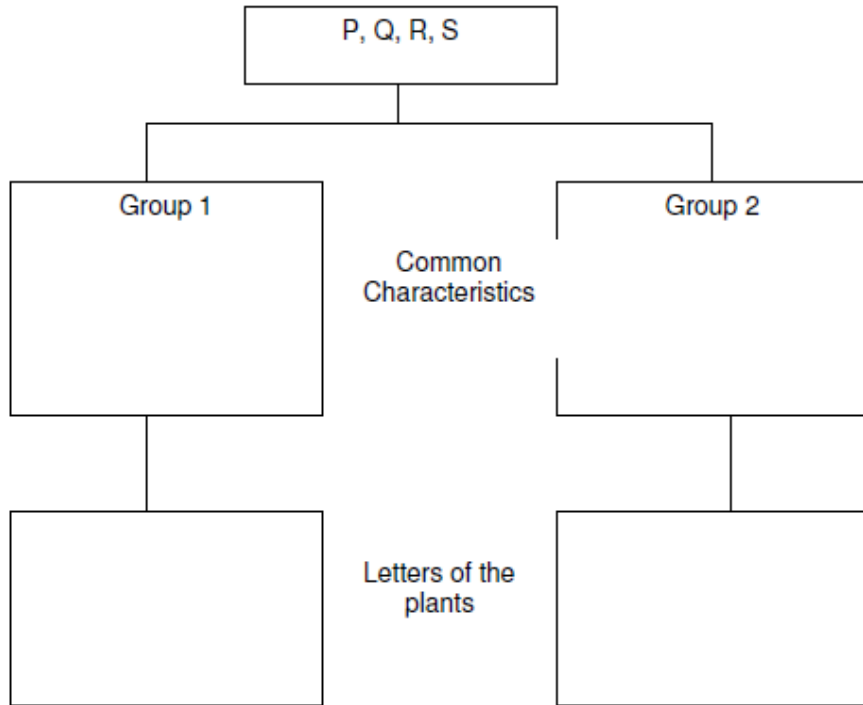
P:.....

Q:.....

R:.....

S:.....

- (b) Classify the plants in Diagram 7 into two groups based on common characteristics.
Kelaskan tumbuhan dalam Rajah 7 kepada dua kumpulan berdasarkan ciri sepunya.



8. (a) The diagram 8.1 below shows some wet clothes hung on a line under different conditions.
Rajah 8.1 di bawah menunjukkan beberapa pakaian yang basah di jemur di bawah keadaan yang berbeza.

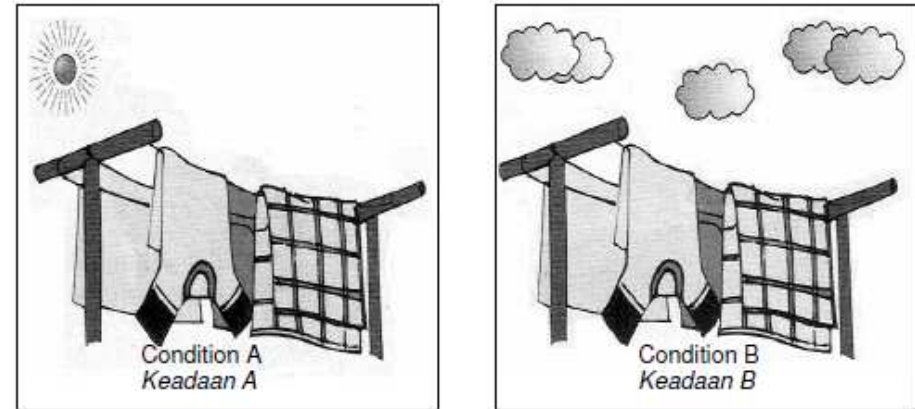


Diagram 8.1
Rajah 8.1

- (i) Based on your observations in the diagram 8.1, state the difference in the time taken for the clothes to dry in Condition A and Condition B.
Berdasarkan kepada pemerhatian dalam rajah 8.1, nyatakan perbezaan dalam masa yang diambil untuk pakaian itu kering dalam keadaan A dan keadaan B.

.....

[1 mark]

- (ii) What inference can be made based on Condition A and Condition B in the diagram above?
Apakah inferen yang boleh dibuat berdasarkan keadaan A dan keadaan B dalam rajah di atas?

.....

(iii) State **one** hypothesis based on your observations in the diagram above.
Nyatakan satu hipotesis berdasarkan pemerhatian dalam rajah di atas.

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

(b) A student carried out an experiment to investigate Condition A and Condition B. The diagram 8.2 shows an experiment to determine how the temperature of the surrounding affects the rate of evaporation.
Seorang pelajar menjalankan satu eksperimen untuk menyiasat keadaan A dan keadaan B. Rajah 8.2 menunjukkan satu eksperimen untuk menentukan bagaimana suhu persekitaran mempengaruhi kadar penyejatan.

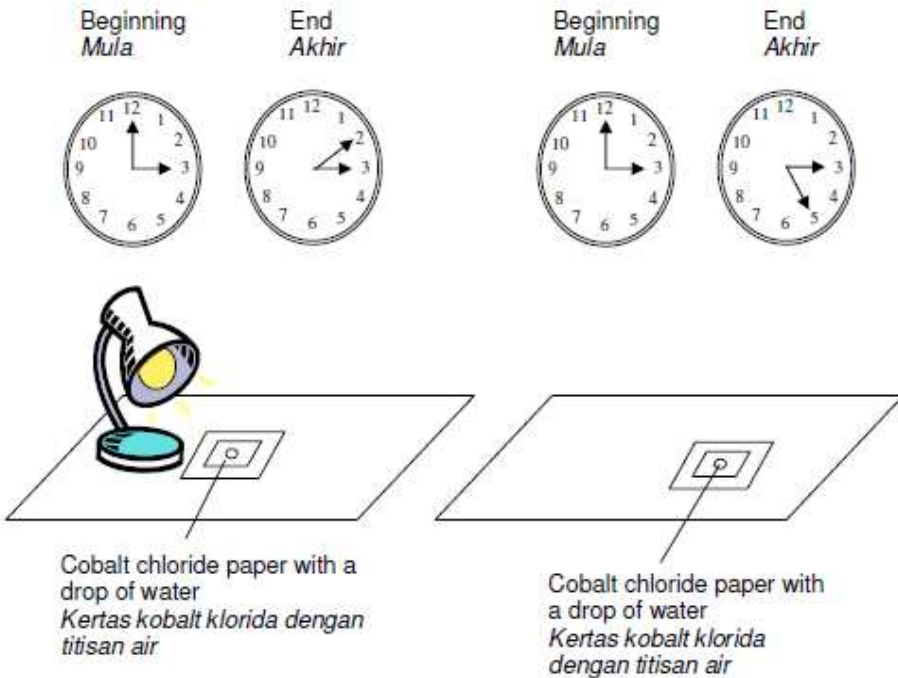
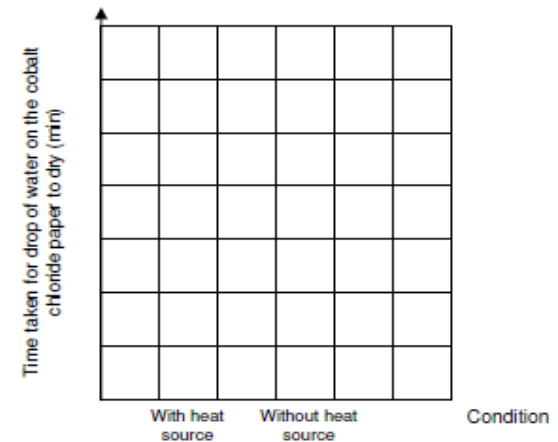


Diagram 8.2

Condition Keadaan	Time taken for drop of water on the cobalt chloride paper to dry (min) Masa yang diambil untuk titisan air mengering di atas kertas kobalt klorida(min)
With heat source Dengan sumber haba	
Without heat source Tanpa sumber haba	

[2 marks]

(c) Based on the readings in the table above, draw a bar chart to show the time taken for the drop of water on the cobalt chloride paper to dry in different conditions.
Berdasarkan kepada bacaan dalam jadual di atas, lukiskan carta bar untuk menunjukkan masa yang diambil untuk titisan air pada kertas kobalt klorida mengering dalam keadaan yang berbeza.



[2 marks]

(d) Based on the bar chart in (c), what can be said about the time taken for the drop of water on the cobalt chloride paper to dry?
Berdasarkan kepada carta bar di (c), apakah yang boleh dinyatakan tentang masa yang diambil oleh air untuk mengering di atas kertas kobalt klorida.

.....

(e) Based on the experiment, state the relationship between the temperature of the surrounding and the rate of evaporation.
 Berdasarkan kepada eksperimen, nyatakan hubungan diantara suhu persekitaran dengan kadar penyejatan.

.....

 [1 mark]

(f) State the variables involved in this experiment.
 Nyatakan pemboleh ubah yang terlibat dalam eksperimen ini.

Manipulated variable Pemboleh ubah dimanipulasi	
Responding variable Pemboleh ubah bergerak balas	
Constant variable Pemboleh ubah tetap	

7 Diagram 7 shows the arrangement of particles in four substances.
 Rajah 7 menunjukkan susunan zarah-zarah bagi empat bahan.

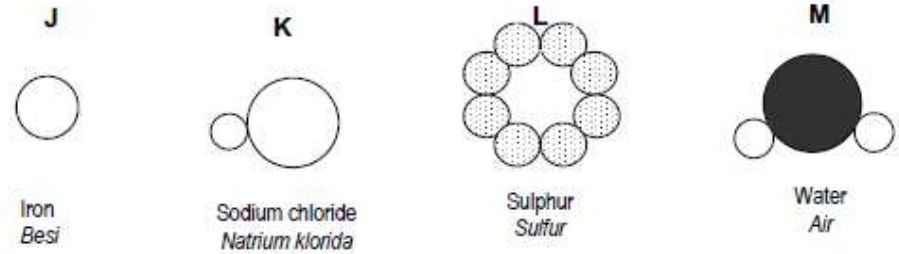


Diagram 7
Rajah 7

(a) Based on your observation in Diagram 7,
 Berdasarkan pemerhatian anda pada Rajah 7,

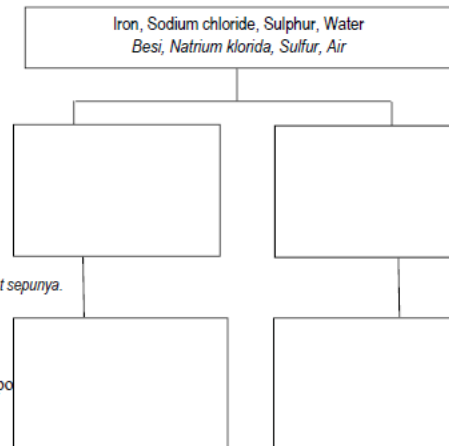
State **one** property based on number of particles from substances of K, L, and M.
 Nyatakan **satu** sifat berdasarkan bilangan zarah daripada bahan K, L dan M.

- J : ...Made up of one type of atom / Terbina daripada sejenis atom
- K :
- L :
- M :

(b) Classify J, K, L,
 Diagram 7 into two
 based on common
 Write the letters
 substances belonging to
 group.

Kelaskan J, K,
 dalam rajah 7
 dua kumpulan
 berdasarkan sifat-sifat sepunya.
 Tuliskan huruf
 setiap kumpulan itu.

<http://smkpbu.blogspot>



and M in
 groups
 properties
 of the
 each

L dan M
 kepada

bahan bagi

7. Diagram 7 shows a picture of flowers P, Q, R, S and T.
 Rajah 7 menunjukkan gambar tumbuhan P, Q, R, S dan T

Common property
 Sifat sepunya

Letter of substance
 Huruf bahan

[4 marks]
 [4 markah]

(c) What is formed when substance J and L:
 Apakah yang terbentuk apabila bahan J dan L:

(i) combine chemically :
 digabungkan secara kimia:

(ii) mix physically :
 dicampurkan secara fizik:

[2 marks]
 [2 markah]

(d) State the method used to separate substance M
 Nyatakan kaedah yang digunakan untuk memisahkan bahan M

.....

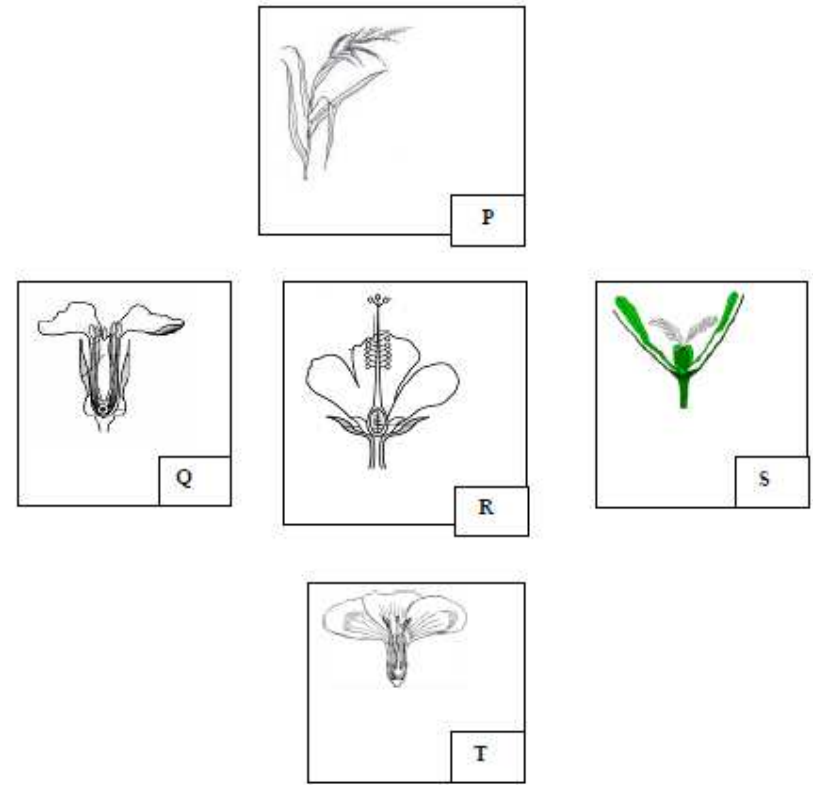


Diagram 7
 Rajah 7

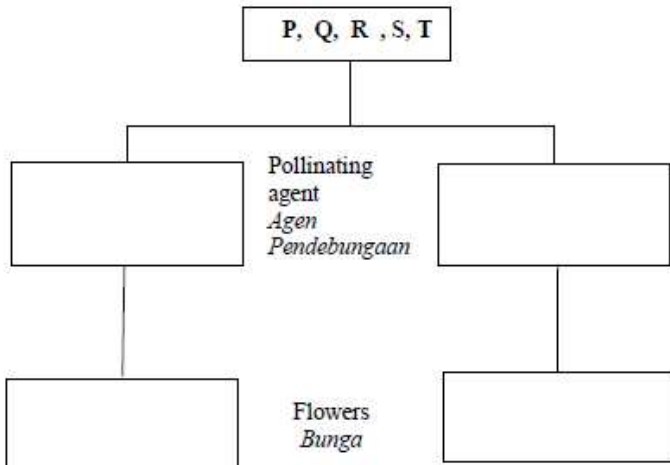
Based on your observations in Diagram 7,
Berdasarkan pemerhatian anda pada Rajah 7,

- a) State one characteristic of any four flowers P, Q, R, S and T that will determine their agent of pollination.
Nyatakan satu ciri bagi mana-mana empat tumbuhan P, Q, R, S dan T yang akan menentukan agen pendebungaan bunga tersebut.

P :
Q :
R :
S :
T :

[4 marks]
[4 markah]

- b) Classify P, Q, R, S and T into two groups based on their pollinating agent.
Kelaskan P, Q, R, S dan T kepada dua kumpulan berdasarkan agen pendebungaan.



[4 marks]

- 8 (a) Diagram 8.1 shows an electric circuit.
Rajah 8.1 menunjukkan satu litar elektrik.

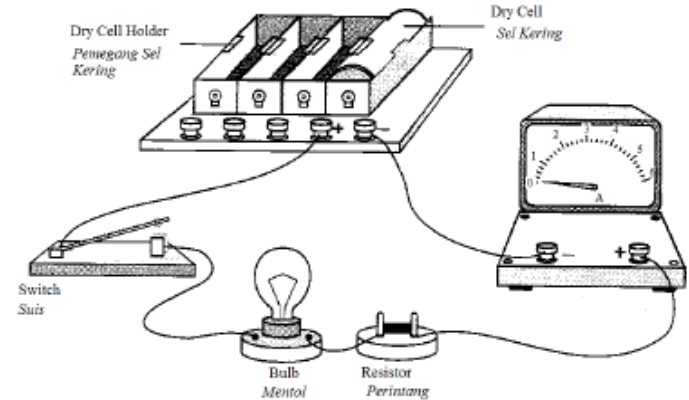


Diagram 8.1
Rajah 8.1

- (i) Based on the circuit in diagram 8.1, what happen to the bulb?
Berdasarkan litar dalam Rajah 8.1, apakah yang berlaku kepada mentol?

- (ii) State your inference.
Nyatakan inferens anda.

- (b) The apparatus set up in Diagram 8.1 was used to study the relationship between resistance and current.
Susunan radas seperti dalam Rajah 8.1 digunakan untuk mengkaji hubungan antara rintangan dan arus.

The procedure of experiment is as follows:
Langkah eksperimen adalah seperti berikut:

- Step 1: Set up the circuit using the 1 Ω resistor.
Langkah 1: Pasangkan litar dengan menggunakan perintang 1 Ω
Step 2: Close the switch and observe the brightness of the bulb and record the ammeter reading.
Langkah 2: Tutupkan suis dan perhatikan kecerahan mentol dan rekodkan bacaan ammeter.
Step 3: Repeat step 2 with a 2 Ω , 5 Ω and 10 Ω resistor respectively.
Langkah 3: Ulangi langkah 2 dengan menggunakan perintang 2 Ω , 5 Ω and 10 Ω .

circuit.

Rajah 8.2 menunjukkan bacaan ammeter apabila perintang yang berbeza disambungkan kepada litar.

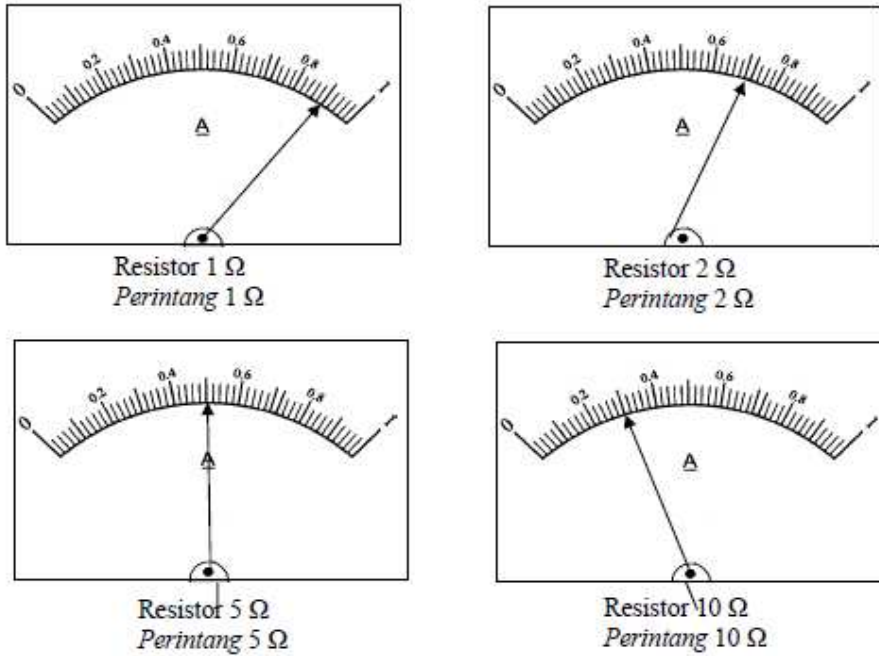


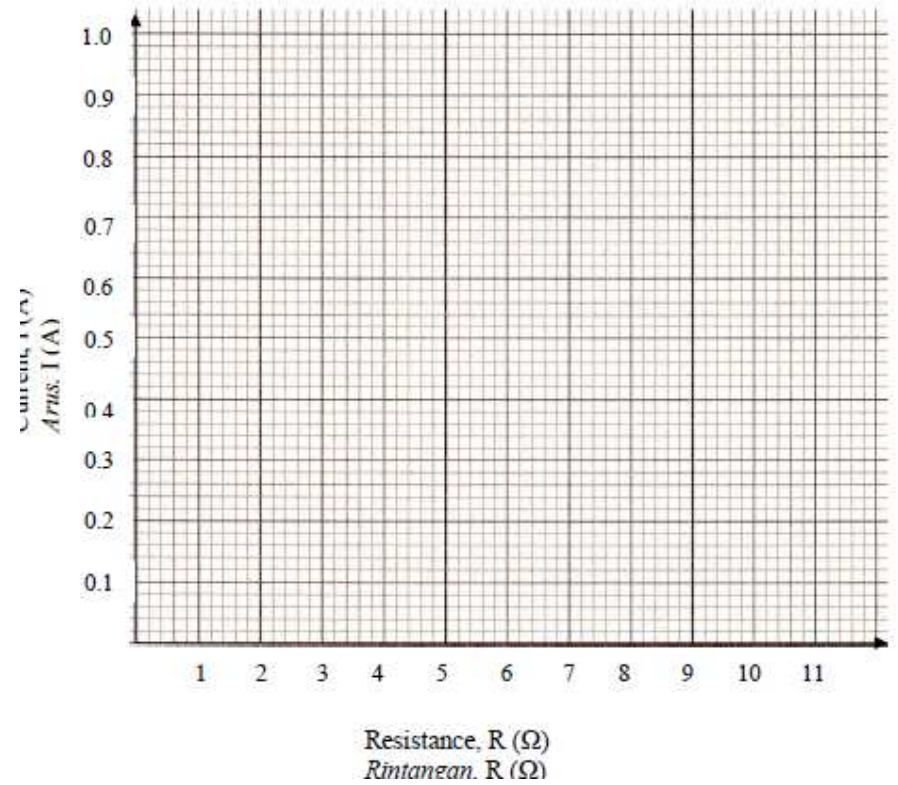
Diagram 8.2

Complete Table 8.3 by recording the reading of the ammeter as shown in Diagram 8.2. Lengkapkan jadual 8.3 dengan merekodkan bacaan ammeter seperti yang ditunjukkan dalam rajah 8.2

Resistance (Ω) Rintangan (Ω)	1	2	5	10
Ammeter reading (A) Bacaan Ammeter (A)	0.90			

Table 8.3
Jadual 8.3

Berdasarkan bacaan di dalam jadual 8.3, plotkan graf arus, I melawan rintangan, R .



12

(d) State the variables involved in the experiment.

Nyatakan pembolehubah yang terlibat dalam eksperimen ini.

Manipulated variable : <i>Pembolehubah dimanipulasi</i> :
Responding variable : <i>Pembolehubah Bergerakbalas</i> :
Fixed variable : <i>Pembolehubah dimalarkan</i> :

(e) Based on the graph in question (c).
Berdasarkan graf dalam soalan (c)

(i) State the relationship between resistance and current.
Nyatakan hubungan antara rintangan dan arus.

.....

(ii) Predict the reading of the ammeter when the resistance is 8 Ω.
Ramalkan bacaan ammeter apabila rintangan ialah 8 Ω.

.....

(f) Based on Diagram 8.2, state the operational definition of current.
Berdasarkan Rajah 8.2, definisikan secara operasi arus.

8 (a) Diagram 8.1 shows a tyre of a bicycle at two different time.
Rajah 8.1 menunjukkan satu tayar basikal pada dua waktu yang berbeza.

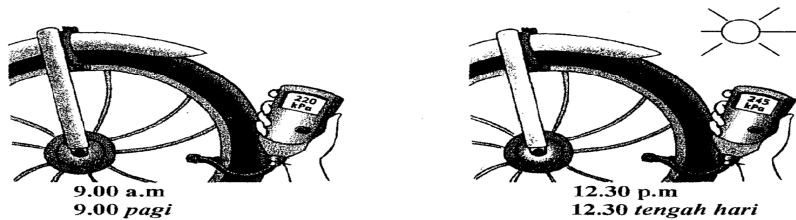


Diagram 8.1

The air pressure at 9.00 a.m is 220 kPa and air pressure at 12.30 p.m is 245 kPa.

Tekanan udara pada pukul 9.00 pagi ialah 220 kPa dan tekanan udara pada 12.30 tengah hari ialah 245 kPa.

State one inference about the air pressure in the tyre.

Nyatakan satu inferens mengenai tekanan udara di dalam tayar itu.

[1 mark]
[1 markah]

(b) Diagram 8.2 shows an apparatus set-up to study the effect of temperature on air pressure.

Rajah 8.2 menunjukkan satu susunan alat radas untuk mengkaji kesan suhu ke atas tekanan udara.

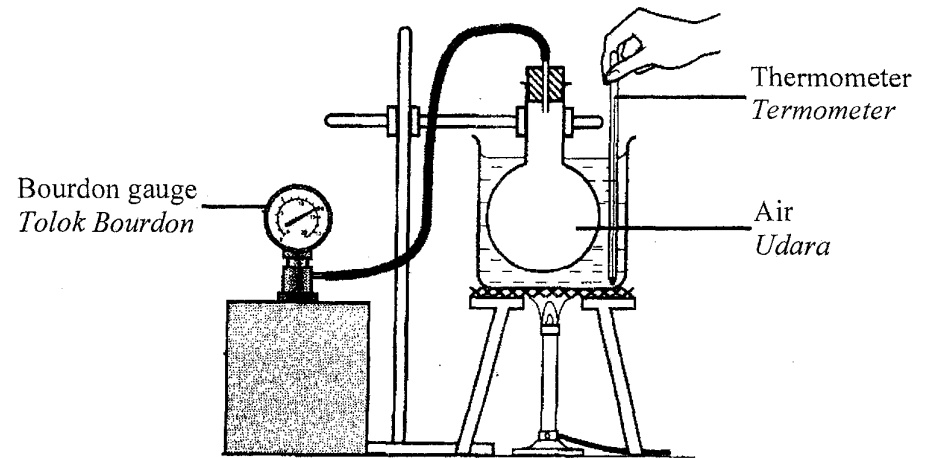
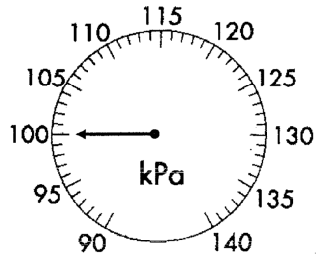


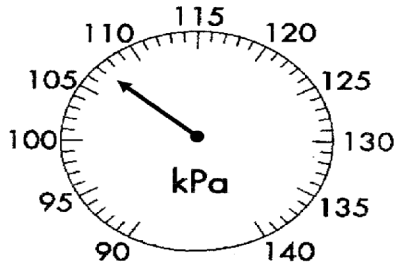
Diagram 8.2
Rajah 8.2

Diagram 8.3 shows the air pressure recorded for different temperature readings. When temperature is 20 °C, the pressure recorded from the Bourdon gauge is 100 kPa.

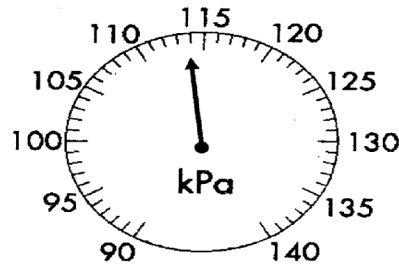
Rajah 8.3 menunjukkan tekanan udara yang direkodkan bagi bacaan suhu yang berbeza. Apabila suhu ialah 20 °C, bacaan tekanan yang direkodkan daripada tolok Bourdon ialah 100 kPa.



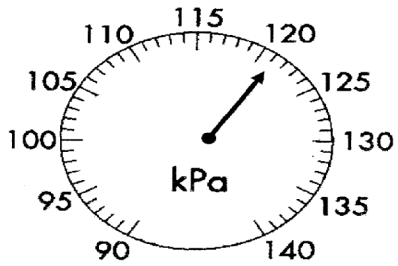
Temperature = 20 °C
Suhu = 20 °C



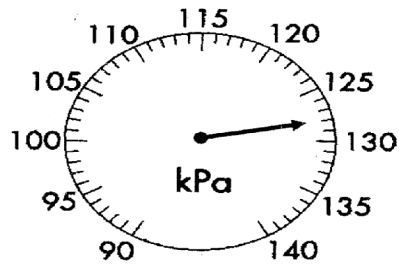
Temperature = 40 °C
Suhu = 40 °C



Temperature = 60 °C
Suhu = 60 °C



Temperature = 80 °C
Suhu = 80 °C



Temperature = 100 °C
Suhu = 100 °C

Diagram 8.3
Rajah 8.3

Based on Diagram 8.3, record the reading of the Bourdon gauge in Table 8.1.

Berdasarkan Rajah 8.3, rekodkan bacaan tekanan udara di dalam Jadual 8.1.

Temperature, °C Suhu, °C	20	40	60	80	100
Air pressure, kPa Tekanan udara, kPa	100	_____	_____	_____	_____

Table 8.1

(c) State the variables involved in this experiment.

Nyatakan pembolehubah-pembolehubah yang terlibat dalam eksperimen ini.

(i) Manipulated variable

Pembolehubah dimanipulasikan

(ii) Responding variable

Pembolehubah bergerakbalas

(d) Use the graph provided on page 21 to answer this part of the question.

Gunakan graf yang disediakan di halaman 21 untuk menjawab soalan bahagian ini.

Based on the reading in Table 8.1, draw a graph to show the air pressure for all five temperatures.

Berdasarkan bacaan dalam Jadual 8.1, lukiskan graf untuk tekanan udara dalam kelima-lima suhu.

7 Diagram 7.1 shows five objects, P, Q, R, S and T.
 Rajah 7.1 menunjukkan lima objek P, Q, R, S dan T.

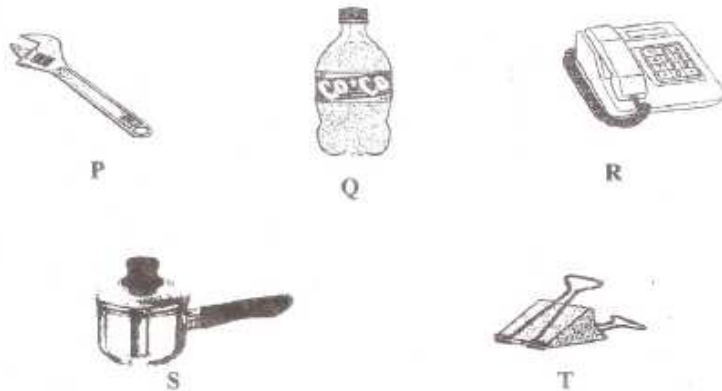
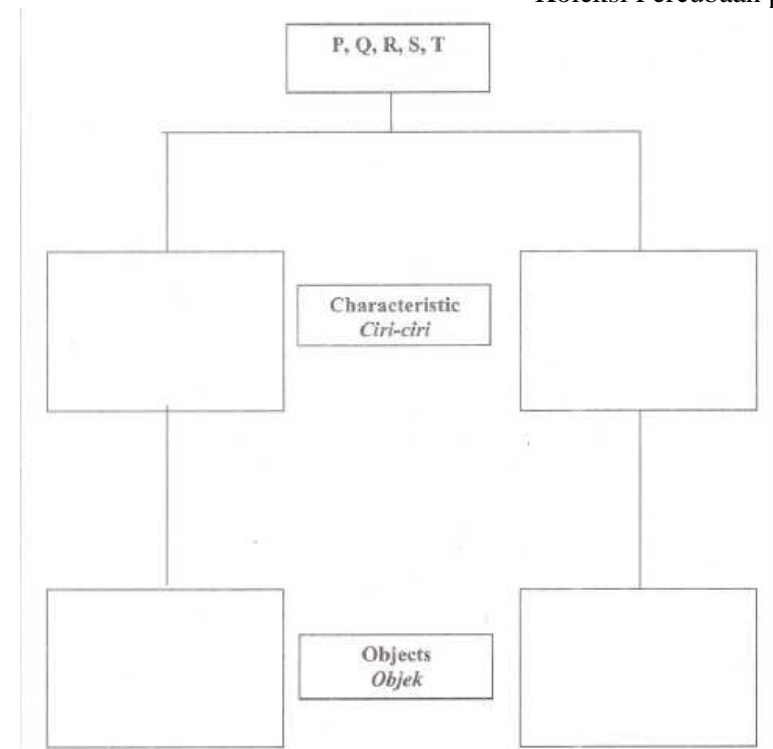


DIAGRAM 7.1
 RAJAH 7.1

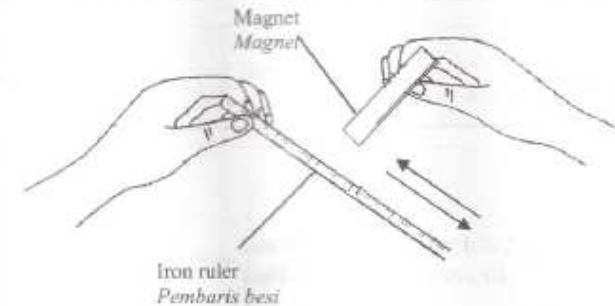
(a) Tick (✓) three objects that can be attracted by magnet.
 Tandakan (✓) tiga objek yang boleh ditarik oleh magnet.

OBJECT OBJEK	RESULT KEPUTUSAN
P	
Q	
R	
S	
T	

(b) Classify objects P, Q, R, S and T into two group based on attraction to magnet.
 Kelaskan objek P, Q, R, S dan T kepada dua kumpulan berdasarkan tarikan kepada magnet.



(c) Diagram 7.2 shows an iron ruler rubbed with a magnet.
 Rajah 7.2 menunjukkan pembaris besi digosok dengan sebatang magnet.



(i) State what will happen to the iron ruler when it is rubbed with a magnet.
 Nyatakan apa akan berlaku kepada pembaris besi apabila digosok dengan magnet.

(ii) Give one inference for your answer in (c) (i).
 Berikan satu inferens pada jawapan anda di (c) (i).

(iii) Predict what will happen if an iron nail is brought near the iron ruler.
 Ramalkan apa akan berlaku jika sebatang paku besi didekatkan dengan pembaris besi tersebut.

8. A student mixes salt into two beakers containing cold water and hot water. The student realizes that the salt dissolves faster in hot water.
 Seorang pelajar mencampurkan garam ke dalam dua bikar yang mengandungi air sejuk dan air panas. Pelajar itu mendapati garam cepat larut dalam air panas.

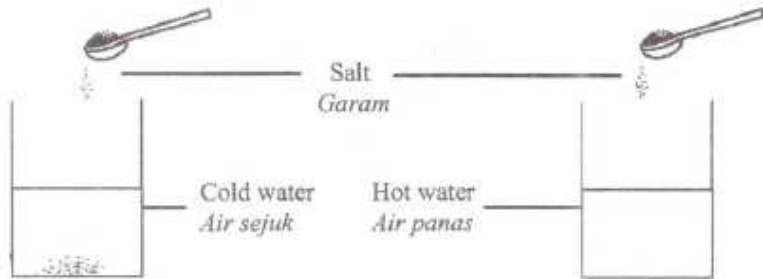


DIAGRAM 8.1
 RAJAH 8.1

DIAGRAM 8.2
 RAJAH 8.2

(a) Based on the observation in Diagrams 8.1 and 8.2, state the difference in the time taken for the salt to dissolve.
 Berdasarkan pemerhatian anda dalam Rajah 8.1 dan 8.2, nyatakan perbezaan dalam masa untuk garam larut.

(b) What inference can be made based on Diagrams 8.1 and 8.2?
 Apakah inferens yang boleh dibuat berdasarkan Rajah 8.1 dan 8.2?

(c) State your hypothesis based on your observation in Diagrams 8.1 and 8.2.
 Nyatakan hipotesis anda berdasarkan pemerhatian anda dalam Rajah 8.1 dan 8.2.

(d)(i) A student carried out an experiment to investigate the situations in Diagram 8.1 and 8.2. The experiment was carried out at different temperatures. Write the temperature for the 4th experiment in the space.
 Seorang pelajar menjalankan satu eksperimen untuk mengkaji situasi-situasi dalam Rajah 8.1 dan 8.2. Eksperimen dijalankan pada suhu yang berlainan. Tulis suhu bagi eksperimen ke 4 di ruang kosong.

	Reading of thermometer ($^{\circ}\text{C}$) Bacaan termometer ($^{\circ}\text{C}$)	Time taken for the salt to dissolve (s) Masa yang diambil untuk garam larut (s)
<p>5g salt 5g garam 100 ml water 100 ml air</p>	<p>30</p>	100
<p>5g salt 5g garam 100 ml water 100 ml air</p>	<p>40</p> <p>43</p>	80

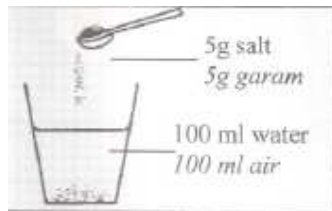
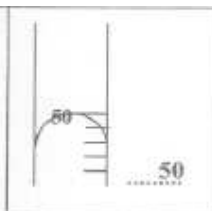
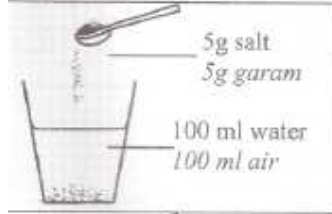
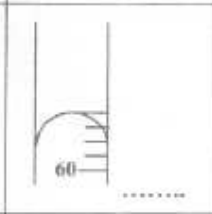
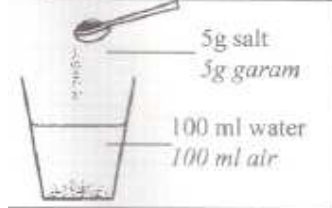
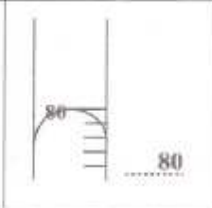
 <p>5g salt 5g garam</p> <p>100 ml water 100 ml air</p>	 <p>70</p>	70
 <p>5g salt 5g garam</p> <p>100 ml water 100 ml air</p>	 <p>55</p>	55
 <p>5g salt 5g garam</p> <p>100 ml water 100 ml air</p>	 <p>50</p>	50

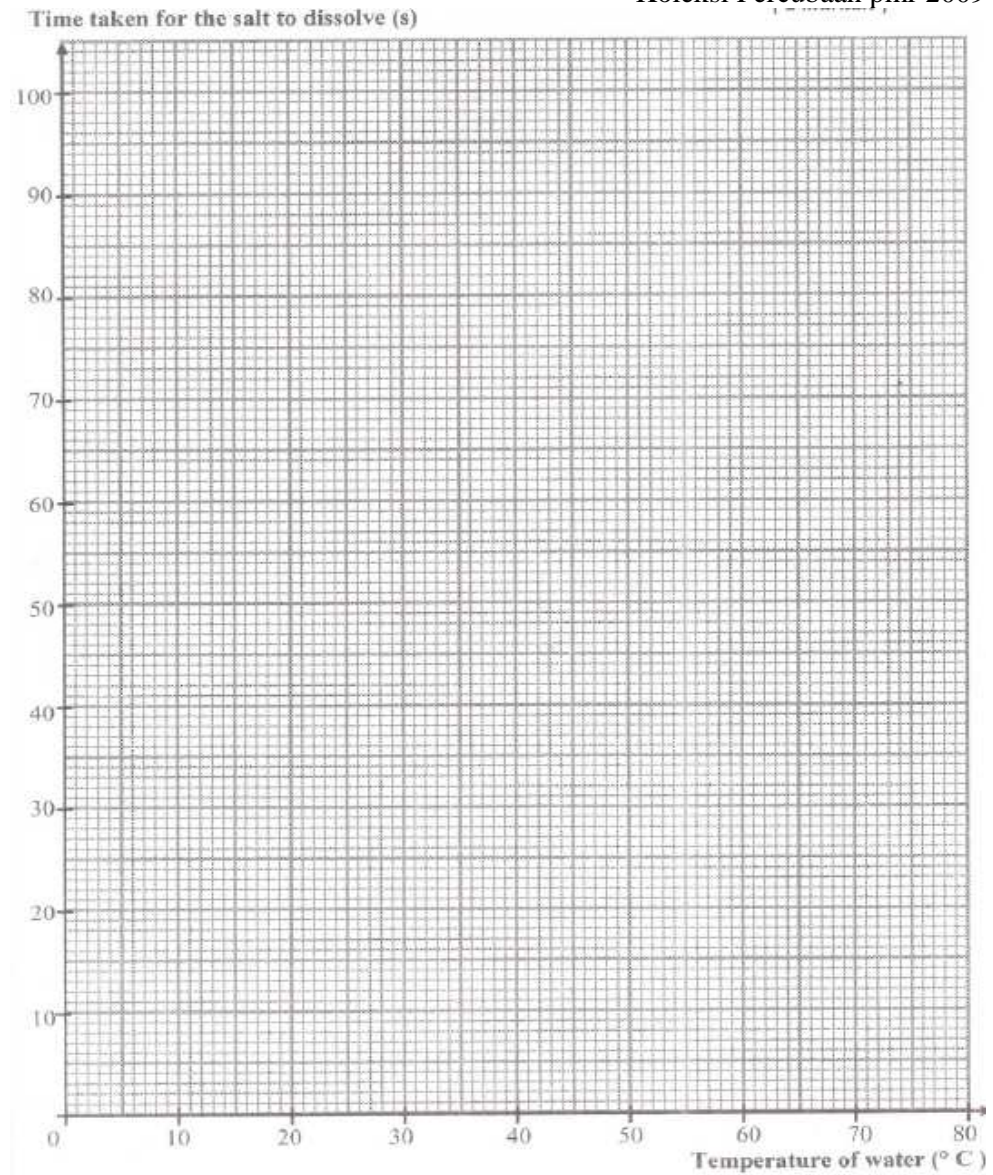
DIAGRAM 8.3

[1 mark]

(ii) Using Diagram 8.3, draw a graph of the time taken for the salt to dissolve against the temperature of water.

Menggunakan Rajah 8.3, lukiskan graf masa yang diambil untuk garam larut melawan suhu air.

[2 mark]



(iii) State the relationship between the temperature of water and the time taken for the salt to dissolve.

Nyatakan hubungan antara suhu air dengan masa yang diambil untuk garam larut.

[1 mark]
[1 markah]

(iv) State the variables involved in this experiment.

Nyatakan pembolehubah yang terlibat dalam eksperimen ini.

Manipulated variable

Pembolehubah dimanipulasi :

[1 marks]
[1 markah]

(v) Based on your graph in (b)(ii), deduce the time taken for the salt to dissolve when the temperature of the water is 70°C.

Berdasarkan graf anda di (b)(ii), tentukan masa yang diambil untuk garam larut pada suhu air 70°C.

[1 mark]
[1 markah]

(vi) Based on Diagram 8.3, state the operational definition for **rate of dissolving**.

Berdasarkan Rajah 8.3, definisikan secara operasi kadar keterlarutan.

[1 mark]
[1 markah]

7. Diagram 7 shows a pictures of animals J, K, L, M and N
Rajah 7 menunjukkan gambar haiwan J, K, L, M dan N

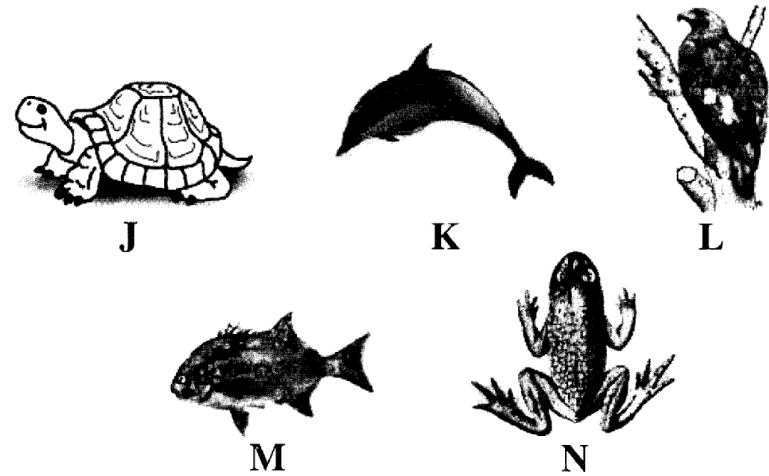


Diagram 7
Rajah 7

(a) State the types of fertilisation practiced by any four of animals J, K, L, M and N.
Nyatakan jenis persenyawaan yang dilakukan oleh mana-mana empat haiwan J, K, L, M dan N.

J:.....

K:.....

L:.....

M:.....

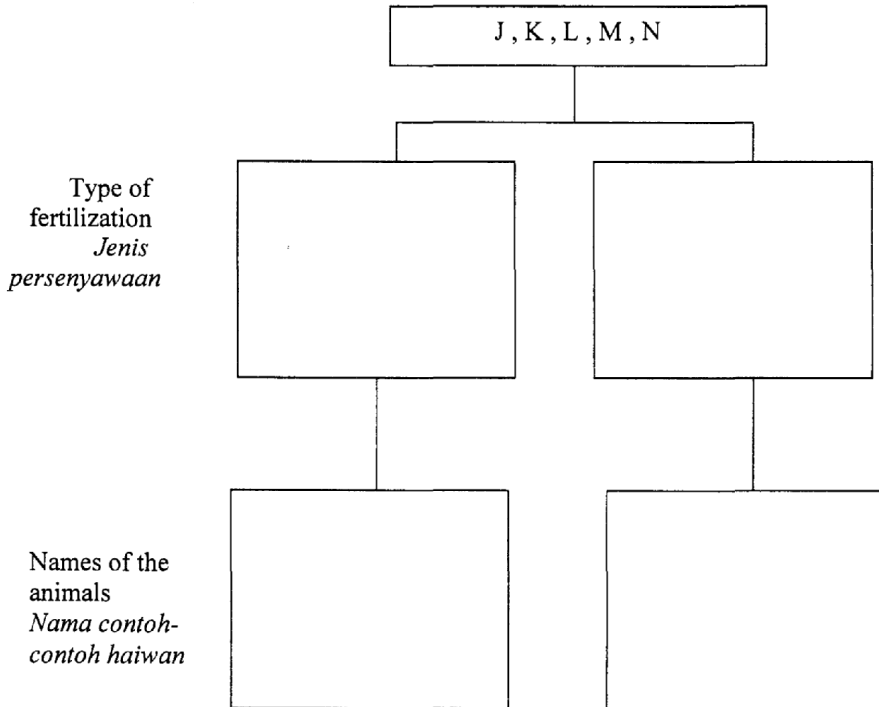
N:.....

(b) Classify animals J, K, L, M and N in Diagram 7 into two groups based on their **common characteristics**.

Name the animals belonging to each group.

Kelaskan haiwan J, K, L, M dan N pada Rajah 7 kepada dua kumpulan berdasarkan ciri-ciri sepunya

Namakan haiwan-haiwan dalam setiap kumpulan.



7 Diagram 7 shows flowers P, Q, R and S with their filaments, anthers, stigmas, styles and petals.
Rajah 7 menunjukkan bunga-bunga P, Q, R dan S dengan filamen, anter, stigma, stil dan ranggi.

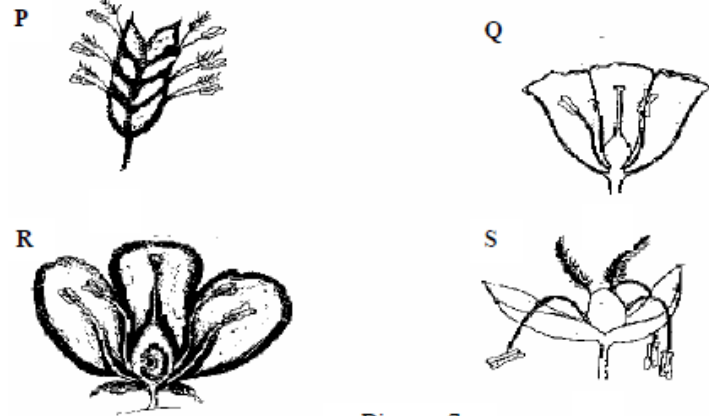


Diagram 7
Rajah 7

(a) Based on your observations, state **one** characteristic of each flower P, Q, R and S.
Berdasarkan pemerhatian anda, nyatakan satu ciri bagi tiap-tiap bunga P, Q, R dan S

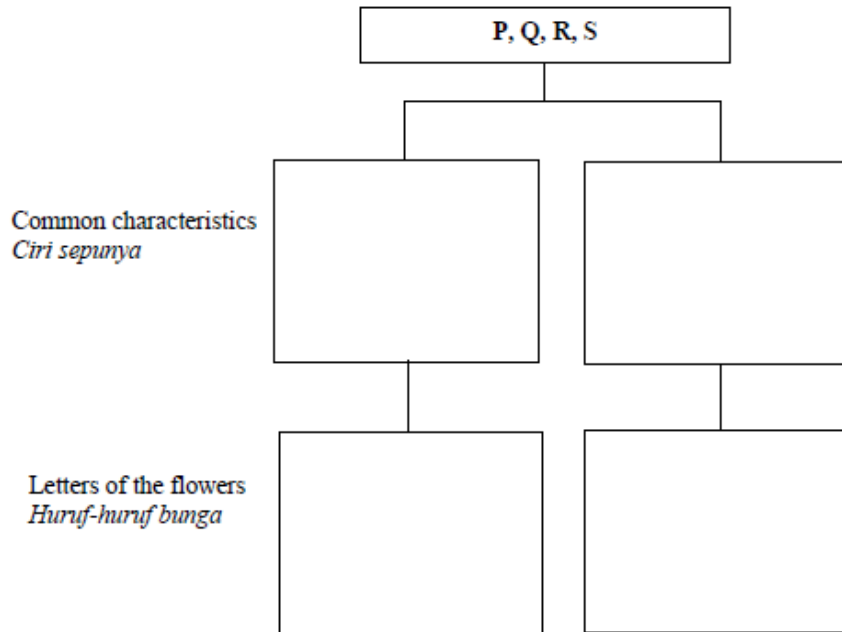
P: _____

Q: _____

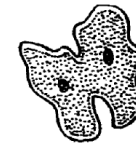
R: _____

S: _____

- (b) Classify flowers P, Q, R and S into two groups based on their common characteristics.
Kelaskan bunga -bunga P, Q, R dan S dalam kepada dua kumpulan berkaitan dengan ciri sepunya.



7. Diagram 7 shows four types of organisms that reproduce asexually.
Rajah 7 menunjukkan empat jenis organisma yang membiak secara aseks.



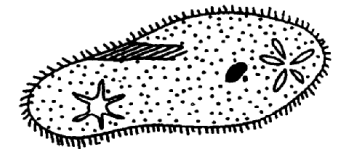
Amoeba
Ameba



Yeast
Yis



Hydra
Hidra



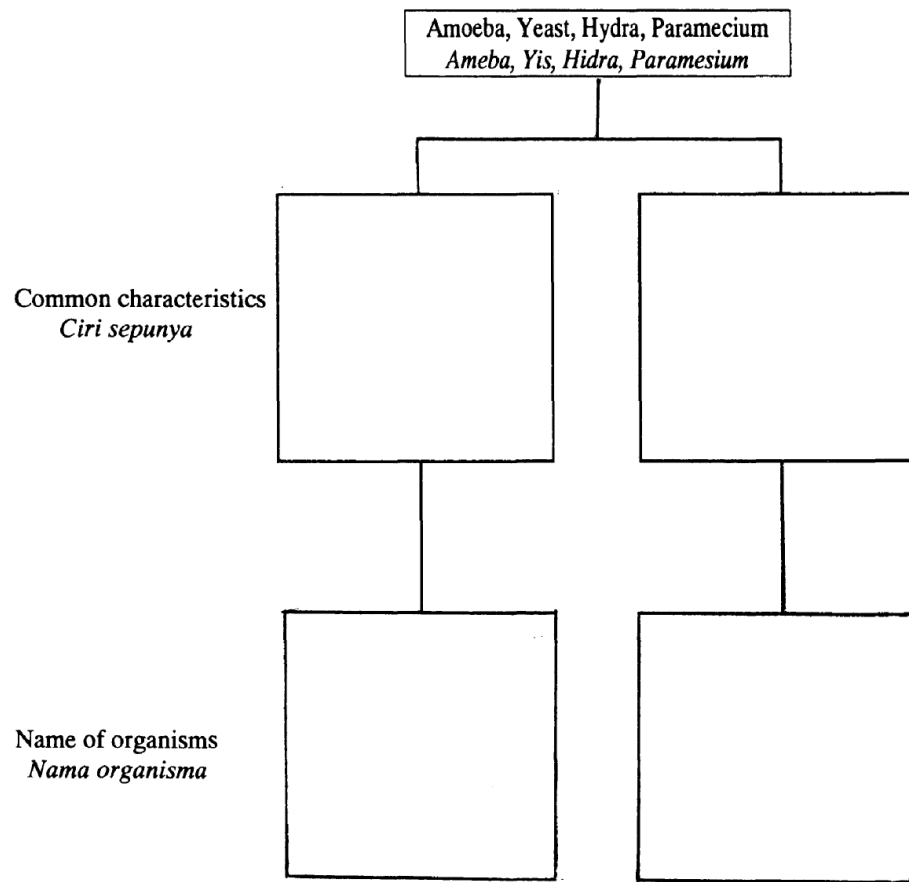
Paramecium
Paramecium

Diagram 7
Rajah 7

- (a) State the type of reproduction of each of the animals shown above.
Nyatakan jenis pembiakan pada setiap haiwan seperti yang ditunjukkan diatas.
- (i) Amoeba / *Ameba* :
 - (ii) Yeast / *Yis* :
 - (iii) Hydra / *Hidra* :
 - (iv) Paramecium / *Paramecium* :

(b) Classify the organisms in Diagram 7 into two groups based on their common characteristics.

Kelaskan organisma di dalam Rajah 7 kepada dua kumpulan berdasarkan ciri sepunya.



[4 marks]
[4 markah]