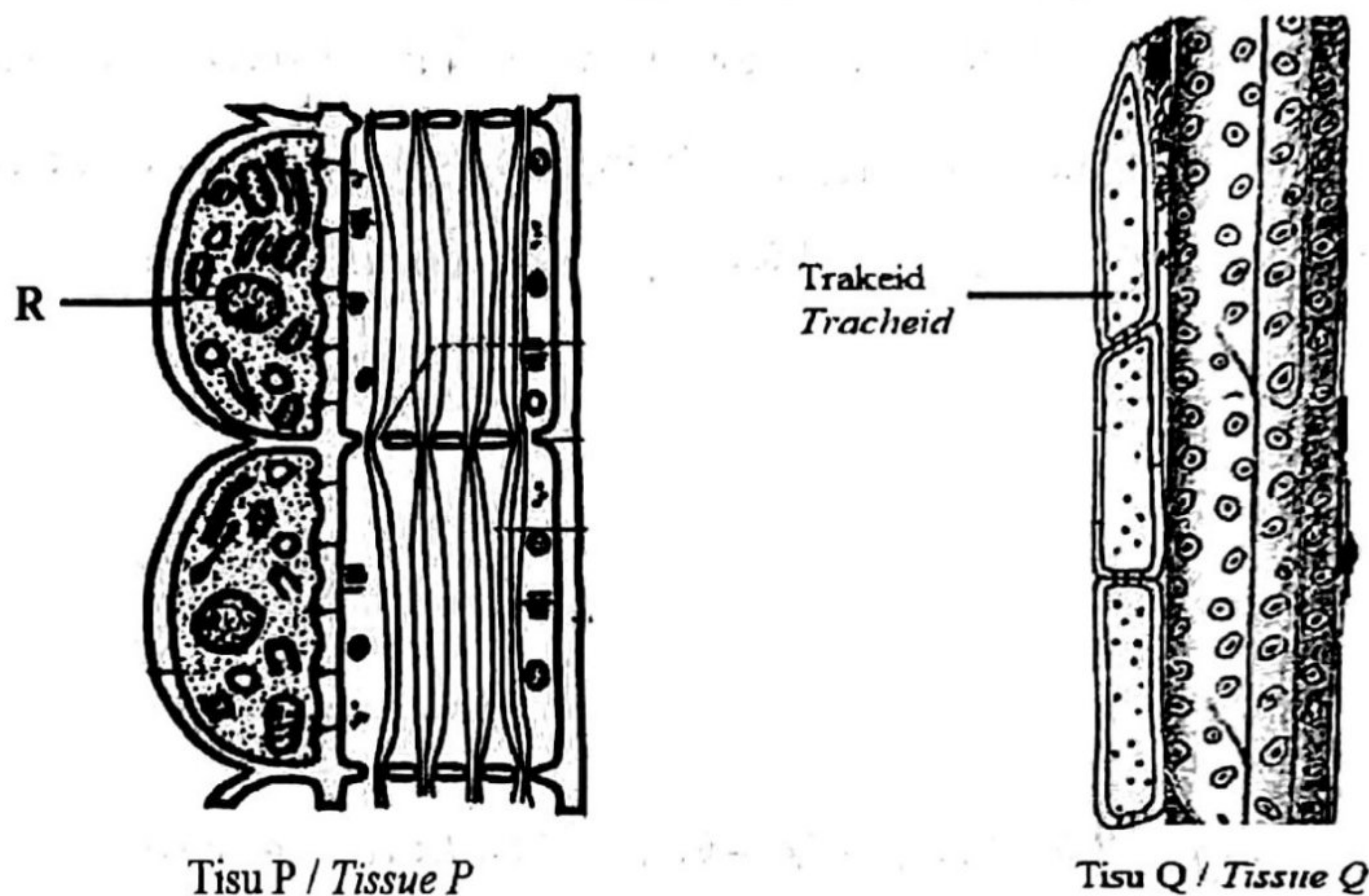


For
Examiner's
Use

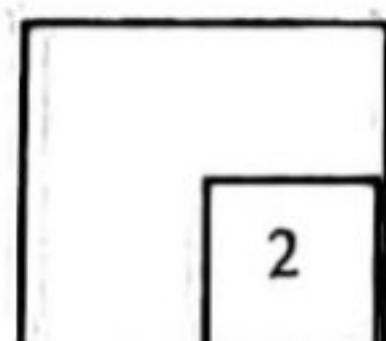
7. Rajah 7.1 menunjukkan tisu P dan tisu Q yang terlibat dalam proses pengangkutan dalam tumbuhan.

Diagram 7.1 shows tissue P and tissue Q that involved in transportation process in plant.



. Rajah 7.1 / Diagram 7.1

7(a)



- (a) Berdasarkan Rajah 7.1, nyatakan tisu P dan tisu Q.
Based on Diagram 7.1, state tissue P and tissue Q.

Tisu P
Tissue P

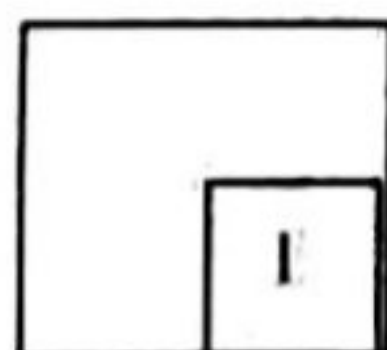
:

Tisu Q
Tissue Q

:

[2 markah / marks]

7(b)



- (b) Bagaimanakah struktur R bertindak dalam memastikan fungsi tisu P lebih efisien.
How structure R ensure tissue P to function efficiently.

.....
.....

[1 markah / mark]

For
Examiner's
Use

- (c) Trakeid pada tisu Q tidak terbentuk dengan lengkap. Terangkan kesannya terhadap tisu Q.

Tracheid in tissue Q did not form completely. Explain the effect on tissue Q.

7(c)

3

[3 markah / marks]

- (d) Tisu Q mempunyai dinding berlignin yang tebal. Terangkan bagaimana ia dapat meningkatkan pertumbuhan ekonomi negara..

Tissue Q consists of thicker lignified wall. Explain how it can increase the growth of country's economy.

7(d)

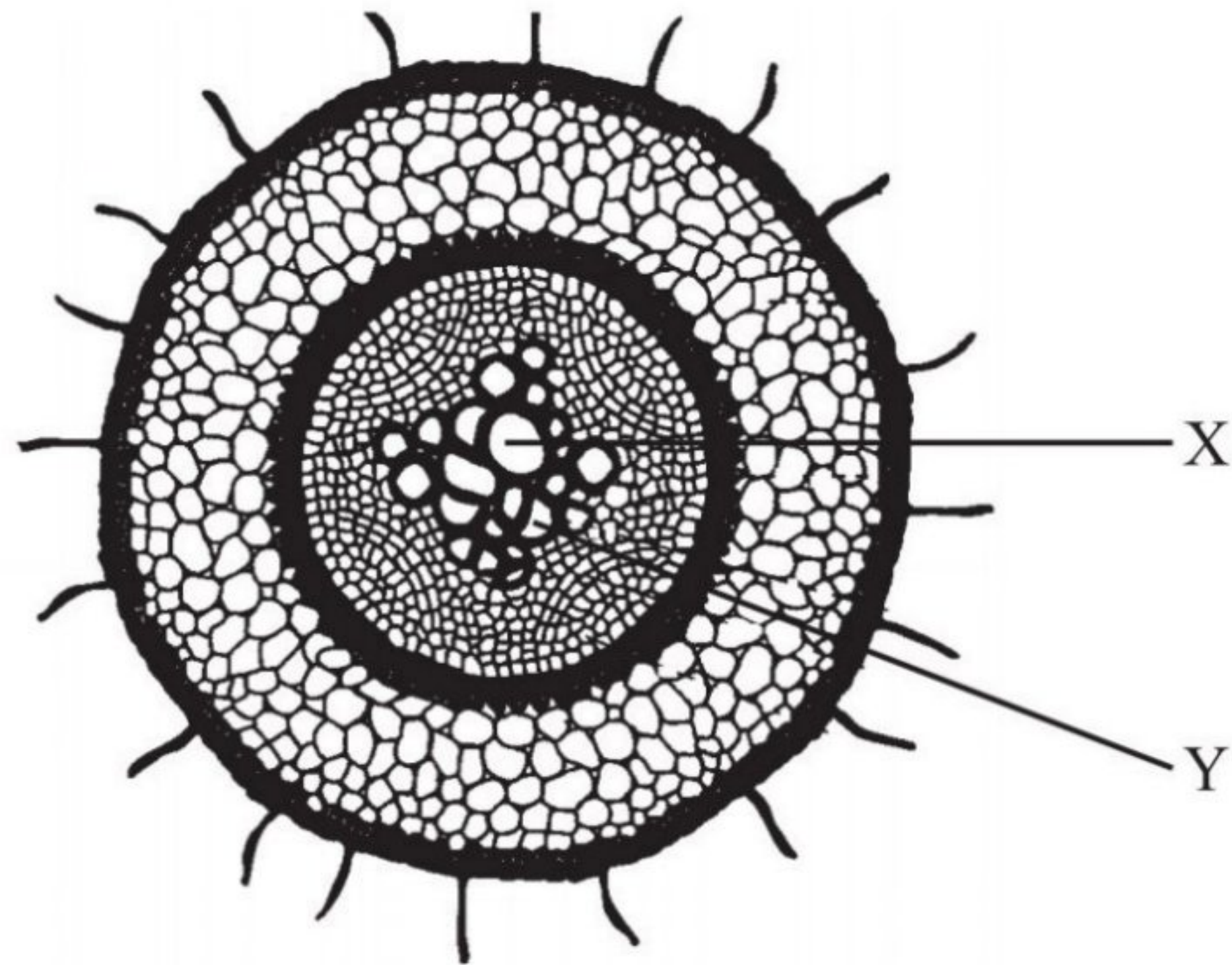
3

[3 markah / marks]

Total

9

- (c) Rajah 4.2 menunjukkan keratan rentas bagi struktur akar tumbuhan eudikot.
Diagram 4.2 shows a cross section of an eudicot plant's root structure.



Rajah 4.2
Diagram 4.2

Terangkan ciri penyesuaian struktur X dan struktur Y bagi membolehkan akar menjalankan fungsi secara efisien.

Explain the adaptive characteristics of structure X and structure Y to enable the root to perform functions efficiently.

.....

.....

.....

.....

.....

.....

[3 markah]
[3 marks]

4(c)

3

- (d) Nyatakan kesan kepada fungsi akar jika sel epidermis akar tidak terubah suai membentuk rambut akar.

State the effect on root function if the root epidermal cells are not modified to form root hairs.

4(d)

	1
--	---

[1 markah]

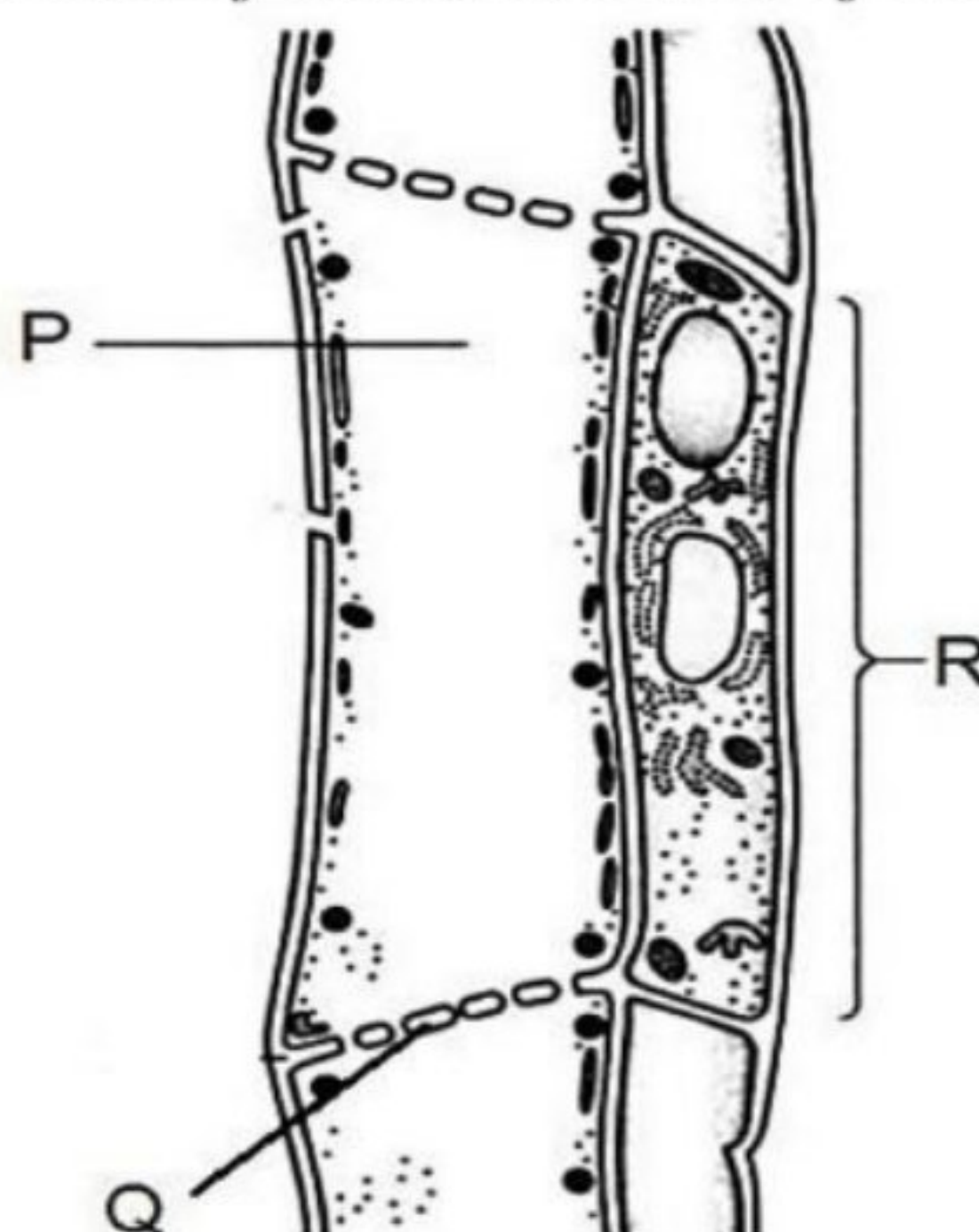
[1 mark]

Total
A4

	7
--	---

For
Examiner's
Use

5. Rajah 5.1 menunjukkan sejenis tisu vaskular pada satu tumbuhan daratan.
Diagram 5.1 shows the structure of vascular tissue of a terrestrial plant.



Rajah 5.1 / Diagram 5.1

- (a) Namakan struktur Q dan R.
Names the structure Q and R.

5(a)

2

Q:

R:

[2 markah /marks]

- (b) Nyatakan kesan keupayaan air di dalam P apabila bahan dari daun diangkut melalui R.
State the effect of water potential in P when the substances transported through R.

5(b)

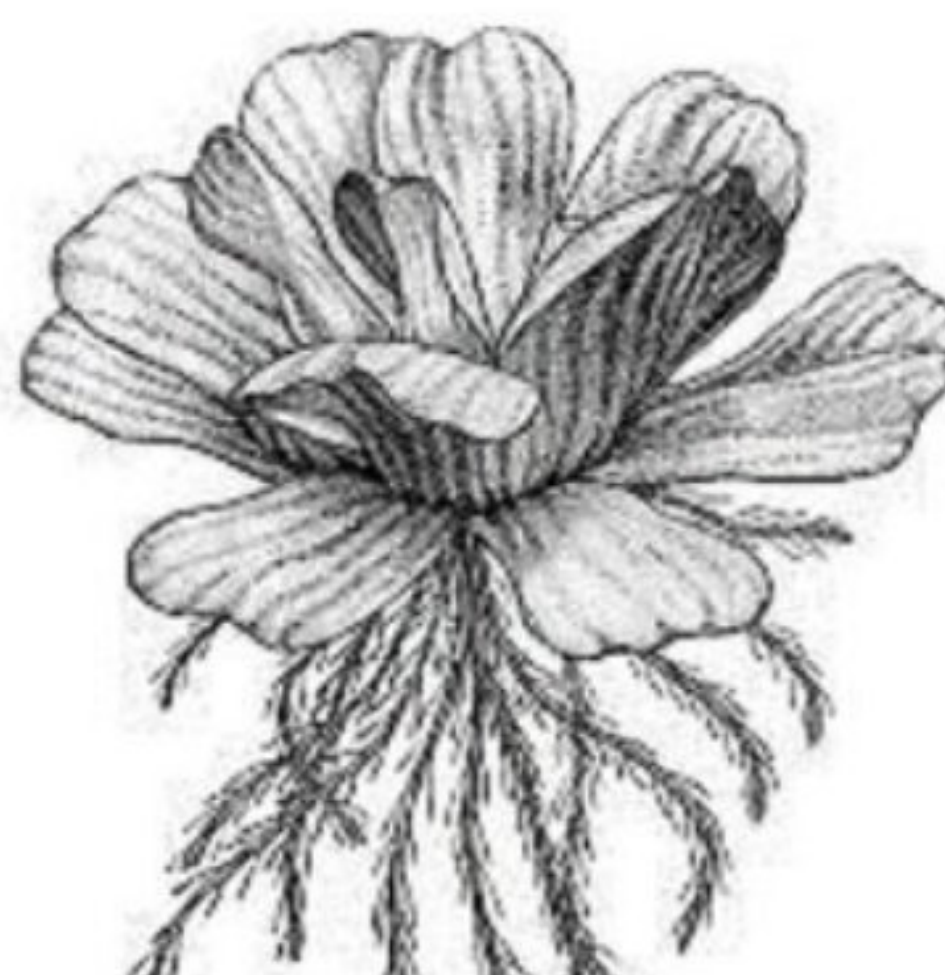
1

.....

[1 markah /mark]

- (c) Rajah 5.2 menunjukkan sejenis tumbuhan yang boleh digunakan untuk merawat air sisa.
Diagram 5.2 shows a type of plant that can be used to treat waste in water

Diagram 5.2 shows a type of plant that can be used to treat waste in water



Rajah 5.2 / Diagram 5.2

For
Examiner's
Use

Terangkan bagaimana tumbuhan dalam Rajah 5.2 boleh digunakan untuk menangani isu pencemaran sumber air.
Explain how plant in Diagram 5.2 can be used to solve the issue of water sources pollution.

5(c)

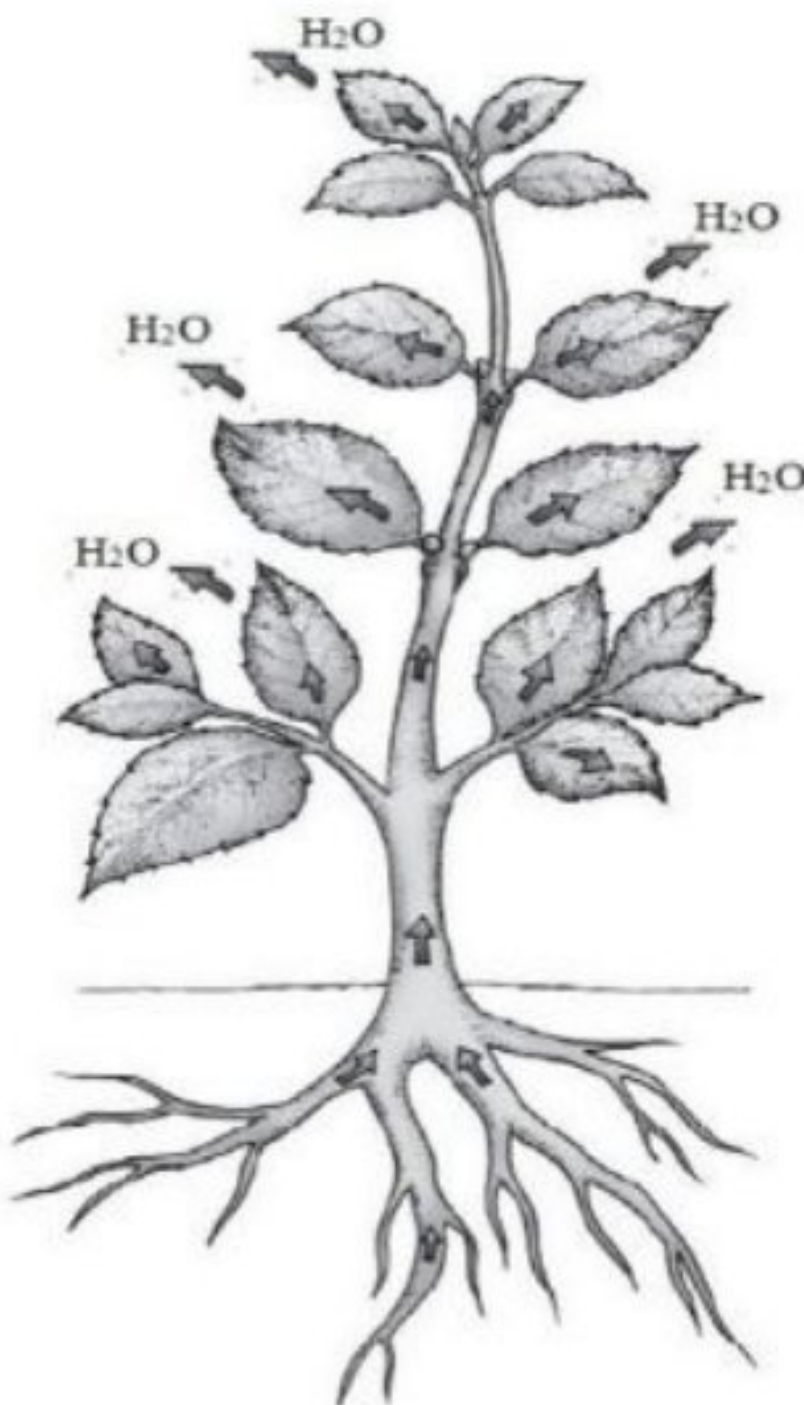
3

[3 markah / marks]

(d)



Rajah 5.3(a)
Diagram 5.3 (a)



Rajah 5.3(b)
Diagram 5.3(b)

Rajah 5.3(a) dan Rajah 5.3(b) melibatkan proses kehilangan air dari tumbuhan. Nyatakan dua perbezaan di antara kedua-dua proses tersebut.
Diagram 5.3(a) and Diagram 5.3(b) involve in the process of water lost from plant. State two differences between both processes shown in Diagram 5.3(a) and Diagram 5.3(b).

5(d)

Rajah 5.3(a) / Diagram 5.3(a)	Rajah 5.3(b) / Diagram 5.3(b)

2

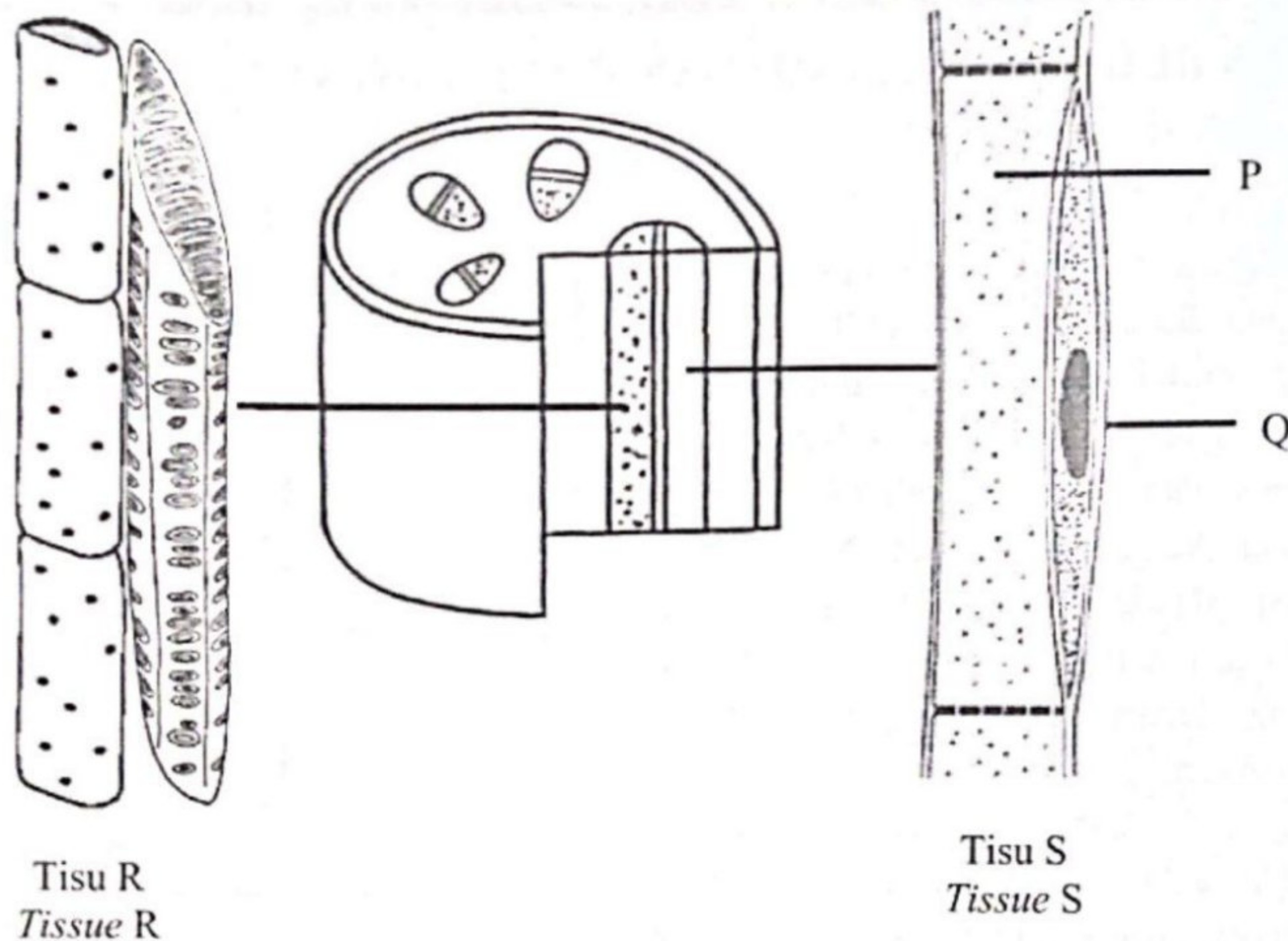
Total

8

[2 markah /marks]

Bahagian A
Section A[60 markah]
[60 marks]Jawab semua soalan dalam bahagian ini.
Answer all questions in this section.

- 1 Rajah 1.1 menunjukkan keratan rentas batang tumbuhan.
Diagram 1.1 shows a cross section of a plant stem.



Rajah 1.1/ Diagram 1.1

- (a) (i) Namakan tisu R dan bahagian yang berlabel P serta Q.
Name tissue R and parts labelled P and also Q.

Tisu R :
Tissue R

P :

Q :

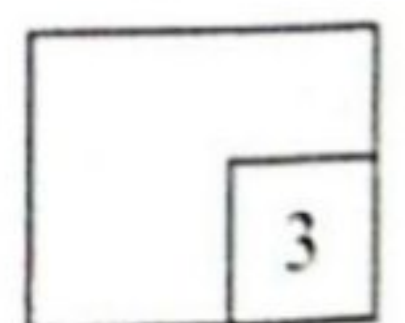
[3 markah/marks]

- (ii) Terangkan bagaimanakah Q disesuaikan dengan fungsinya dalam pengangkutan bahan organik pada tisu S?
Explain how Q is adapted to its function in transportation of organic substances at tissue S?

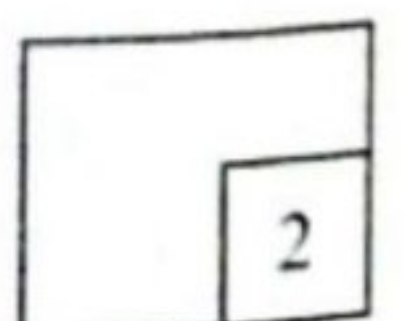
.....
.....

[2 markah/marks]

1(a)(i)

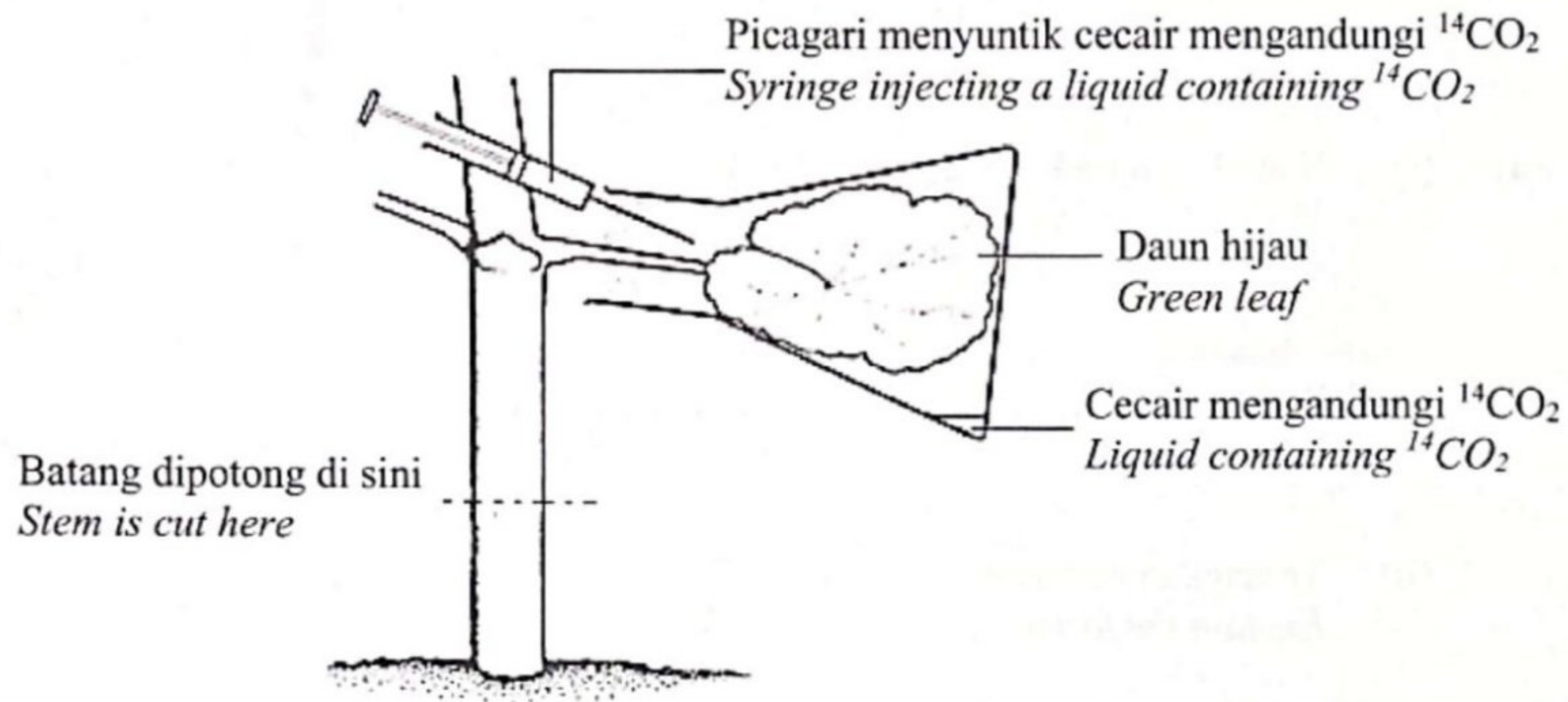


1(a)(ii)

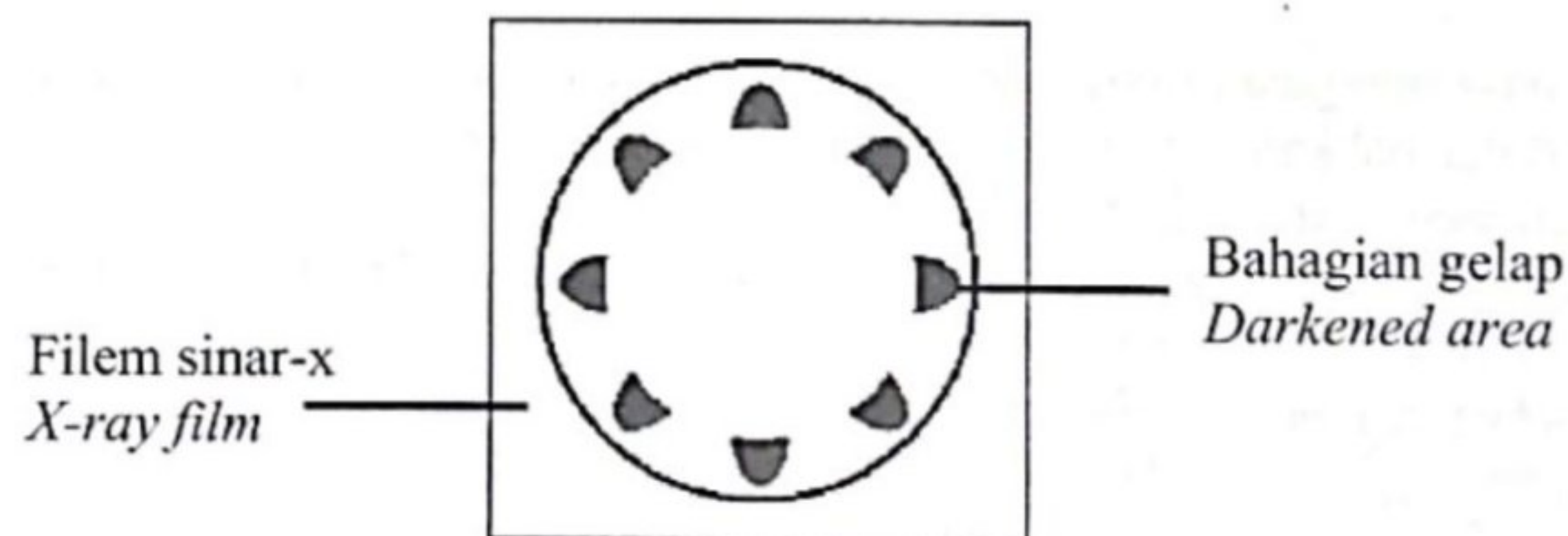


- (b) Rajah 1.2 menunjukkan satu set radas yang digunakan untuk mengkaji fotosintesis. Daun telah dibekalkan dengan isotop radioaktif karbon-14 dalam bentuk $^{14}\text{CO}_2$ dan dibiarkan terdedah kepada cahaya matahari selama dua hari. Selepas dua hari, satu potongan nipis dibuat pada bahagian batang. Radiografi sinar-x telah dilakukan terhadap potongan tersebut dan didapati beberapa bahagian gelap muncul pada filem sinar-x seperti pada Rajah 1.3.

Diagram 1.2 shows a setup of apparatus used to study photosynthesis. The leaf was supplied with radioactive isotope of carbon-14 in the form of $^{14}\text{CO}_2$ and left exposed to sunlight for two days. After two days, a thin section was cut from the stem. X-ray radiography was applied to the stem section and it was found that there were few dark areas corresponded to certain parts on the x-ray film as shown in Diagram 1.3.



Rajah 1.2/ Diagram 1.2



Rajah 1.3/ Diagram 1.3

Kenal pasti tisu di bahagian yang diwarnakan gelap pada filem sinar-x di Rajah 1.3.
Identify the tissue darkened on the x-ray film as in Diagram 1.3.

[1 markah/mark]

1(b)

1

Total

6
