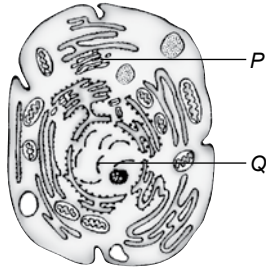


Kertas 1

1. Rajah 1 menunjukkan ultrastruktur satu sel haiwan.
Diagram 1 shows the ultrastructure of an animal cell.



Rajah 1 / Diagram 1

Antara yang berikut, yang manakah P dan Q?
Which of the following are P and Q?

	P	Q
A	Ribosom Ribosome	Nukleus Nucleus
B	Ribosom Ribosome	Mitokondrion Mitochondrion
C	Jasad Golgi Golgi apparatus	Mitokondrion Mitochondrion
D	Jasad Golgi Golgi apparatus	Nukleus Nucleus

2. Maklumat di bawah adalah mengenai organel P.
The information below is about organel P.

- Mengandungi enzim hidrolitik
Contains hydrolytic enzymes
- Mencernakan molekul organik kompleks dan memusnahkan organel yang telah rosak
Digests complex organic molecules and eliminates worn-out organelles

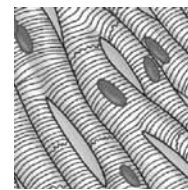
Apakah organel P?
What is organelle P?

- A Ribosom
Ribosome
- B Jasad Golgi
Golgi apparatus
- C Jalinan endoplasma kasar
Rough endoplasmic reticulum
- D Lisosom
Lysosome

3. Antara organel yang berikut, yang manakah terlibat dalam pembentukan gentian gelendong?
Which of the following organelles is involved in the formation of spindle fibres?

- A Sentriol / Centriole
- B Nukleus / Nucleus
- C Lisosom / Lysosome

4. Rajah 2 menunjukkan salah satu daripada tiga jenis tisu otot.
Diagram 2 shows one of the three types of muscle tissue.



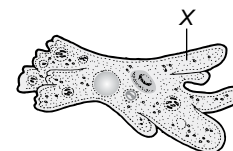
Rajah 2 / Diagram 2

Antara organel-organel berikut, yang manakah dijumpai dengan banyak dalam tisu ini?
Which of the following organelles is found abundantly in this tissue?

Which of the following organelles is found abundantly in this tissue?

- A Jasad Golgi
Golgi apparatus
- B Lisosom
Lysosome
- C Jalinan endoplasma kasar
Rough endoplasmic reticulum
- D Mitokondrion
Mitochondrion

5. Rajah 3 menunjukkan organisma unisel, Amoeba proteus.
Diagram 3 shows the unicellular organism, Amoeba proteus.



Rajah 3 / Diagram 3

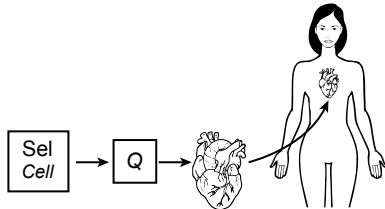
Apakah fungsi struktur X?
What are the functions of structure X?

- I Pemakanan
Feeding
- II Respirasi
Respiration
- III Pengosmokawalaturan
Osmoregulation
- IV Pergerakan
Locomotion

- A I dan III
I and III
- B II dan III
II and III
- C I dan IV
I and IV
- D II dan IV
II and IV

6. Rajah 4 menunjukkan organisasi sel dalam manusia.

Diagram 4 shows cell organisation in human.



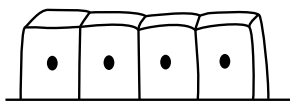
Rajah 4 / Diagram 4

Antara yang berikut, yang manakah mewakili Q?
Which of the following represent Q?

- A
- B
- C
- D

7. Rajah 5 menunjukkan sejenis tisu haiwan.

Diagram 5 shows a type of animal tissue.



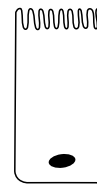
Rajah 5 / Diagram 5

Antara yang berikut, yang manakah tisu itu?
Which of the following is the tissue?

- A Tisu penghubung
Connective tissue
- B Tisu saraf
Nerve tissue
- C Tisu epitelium
Epithelial tissue
- D Tisu otot
Muscle tissue

8. Rajah 6 menunjukkan sel khusus dalam sistem pencernaan.

Diagram 6 shows a specialised cell in a digestive system.



Rajah 6 / Diagram 6

Organ yang padat dengan sel itu ialah

The organ that is abundant with the cell is

- A Usus kecil
Small intestine
- B Usus besar
Large intestine
- C Perut
Stomach
- D Esofagus
Oesophagus

9. Antara yang berikut, yang manakah kesan ke atas sel sekiranya jalinan endoplasma licin tiada?

Which of the following is the effect to the cell if smooth endoplasmic reticulum is absent?

- A Tiada penghasilan tenaga
There is no production of energy
- B Tiada sintesis lipid
There is no synthesis of lipids
- C Tiada sintesis protein
There is no synthesis of protein
- D Tiada modifikasi protein
There is no modification of protein

10. Organ-organ yang manakah membentuk sistem urinari?

Which organs make up the urinary system?

- I Uterus
Uterus
- II Ginjal
Kidney
- III Ureter
Urether
- IV Pankreas
Pancreas
- A I dan II sahaja
I and II only
- B I dan III sahaja
I and III only
- C II dan III sahaja
II and III only
- D II dan IV sahaja
II and IV only

1. Rajah 1 menunjukkan dua jenis sel.

Diagram 1 shows two types of cells.



Rajah 1 / Diagram 1

(a) Nyatakan **satu** perbezaan antara sel A dan sel B.

State **one** difference between cell A and cell B.

[1 markah / 1 mark]

(b) (i) Namakan struktur berlabel K dan L.

Name the structures labelled K and L.

[2 markah / 2 marks]

(ii) Apakah yang membentuk struktur K dan L?

What are structures K and L made of?

[2 markah / 2 marks]

(iii) Terangkan **satu** ciri struktur L yang berkaitan dengan fungsinya.

Explain **one** characteristic of structure L which is related to its function.

[2 markah / 2 marks]

(iv) Terangkan bagaimana sebatian dalam struktur K membantu dalam menjalankan fungsinya.

Explain how the compound in structure K helps it to carry out its function.

[2 markah / 2 marks]

(c) (i) Namakan **satu** jenis sel di mana organel M dijumpai dalam kepadatan yang tinggi.

Name **one** type of cell where organelle M is found abundantly.

[1 markah / 1 mark]

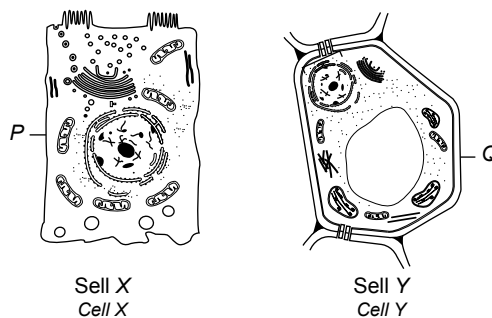
(ii) Terangkan mengapa sel yang dinamakan di 1(c)(i) mengandungi banyak organel M.

Explain why the cell named in 1(c)(i) contains more organelles M.

[2 markah / 2 marks]

2. Rajah 2 menunjukkan dua jenis sel, sel X dan sel Y.

Diagram 2 shows two types of cells, cell X and cell Y.



Rajah 2 / Diagram 2

(a) Berdasarkan Rajah 2, yang manakah merupakan sel tumbuhan? Terangkan jawapan anda.
Based on Diagram 2, which is a plant cell? Explain your answer.

[2 markah / 2 marks]

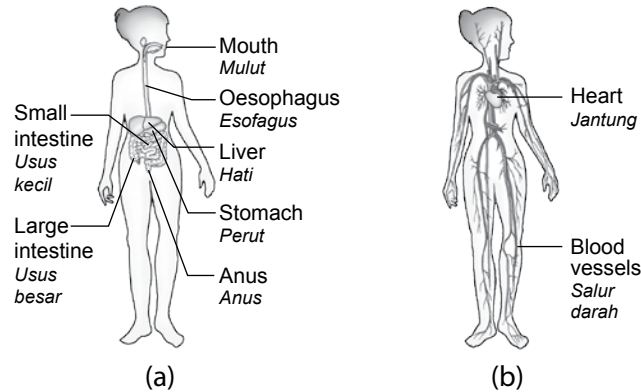
(b) (i) Namakan struktur berlabel P dan Q.
Name the structures labelled P and Q.

[2 markah / 2 marks]

(ii) Berikan **dua** perbezaan dari segi struktur antara P dan Q.
Give **two** differences in structure between P and Q.

[2 markah / 2 marks]

3. Rajah 3 (a) dan (b) menunjukkan dua sistem organ.
Diagrams 3 (a) and (b) show two human organ systems.



Rajah 3 / Diagram 3

(a) Apakah yang dimaksudkan dengan istilah
What is meant by the term

- (i) sel / cell?
- (ii) tisu / tissue?
- (iii) organ / organ?
- (iv) sistem organ / organ system?

[7 markah / 7 marks]

(b) Namakan sistem organ yang ditunjukkan di dalam Rajah 3(a) dan (b).
Name the organ systems shown in Diagram 3(a) and (b).

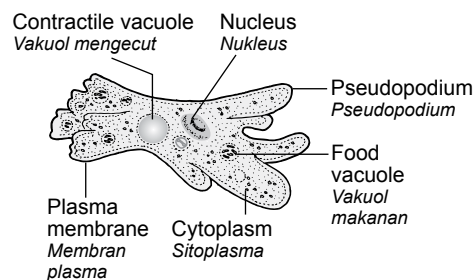
[2 markah / 2 marks]

(c) Apakah fungsi-fungsi sistem organ dalam Rajah 3(b)?
What is the function of the organ system in Diagram 3(b)?

[1 markah / 1 mark]

(d) Rajah 3(c) menunjukkan satu organisma unisel, *Amoeba* sp. yang boleh berfungsi seperti satu unit kehidupan yang kompleks.

Diagram 3(c) shows a unicellular organism, *Amoeba* sp. that can function as a complete unit of life.



Rajah 3(c) / Diagram 3(c)

- (i) Huraikan bagaimana *Amoeba* sp. boleh menjalankan proses hidup yang berikut: nutrisi, pembiakan dan kepekaan terhadap asid.

Describe how Amoeba sp. can carry out the following life processes: nutrition, reproduction and sensitivity towards acid.

[8 markah / 8 marks]

- (ii) Terangkan mengapa *Amoeba* sp. tidak memerlukan sistem organ seperti sistem respirasi yang terdapat dalam organisma multisel.

Explain why Amoeba sp. does not require organ system such as the respiratory system found in multicellular organisms.

[2 markah / 2 marks]