14. Maklumat berikut adalah tentang pengecutan otot kardium
The following information is about contraction of the cardiac muscle

P	Impuls tersebar ke kedua-dua ventrikel, ventrikel mengecut, memaksa darah keluar *The impulses spread to both ventricles, they contracted and force blood out*
Q	Impuls tiba di nodus atrioventricular *The impulses reach atrioventricular nodes*
R	Nodus sinoatrial menjana impuls *Sinoatrial nodes generate impulses*
S	Impuls tersebar ke kedua-dua atrium, atrium mengecut, memaksa darah memasuki ventrikel *Impulses spread to both atria, they contracted and force blood into the ventricles*
T	Gentian otot khusus iaitu berkas His dan gentian Purkinje mengalirkan impuls ke bahagian hujung jantung *Specialized muscle fibre known as bundle of His and Purkinje fibre conduct impulses to the heart apex*

Urutan yang manakah betul tentang pengecutan otot kardium?
Which sequence is correct about the contraction of cardiac muscle?

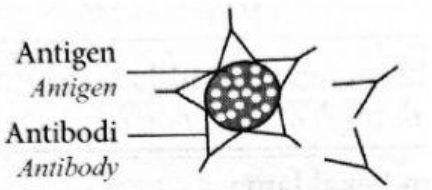
A P, Q, R, S, T
B Q, S, R, T, P
C R, S, Q, T, P
D T, Q, R, S, P

15. Pernyataan di bawah menunjukkan mekanisme yang digunakan oleh antibodi untuk memusnahkan antigen.
The statement below shows the mechanism used by antibodies to destroy antigen

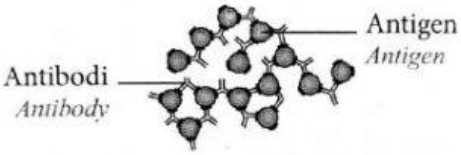
Antibodi menyebabkan patogen menggumpal *Antibody causes pathogen to clump together*

Antara berikut yang manakah merujuk kepada mekanisme di atas?
Which of the following refers to the above mechanism?

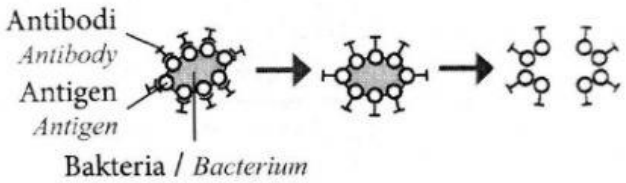
A



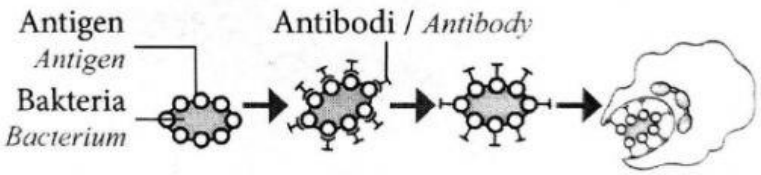
B



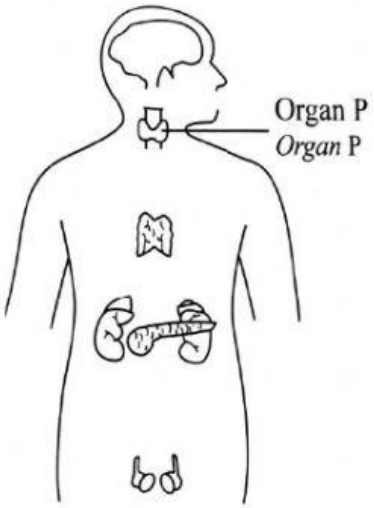
C



D



16. Rajah 11 menunjukkan sistem endokrin manusia.
Diagram 11 shows human endocrine system.



Rajah 11
Diagram 11

Namakan organ P.
Name organ P.

A Kelenjar tiroid
Thyroid gland
B Kelenjar pituitari
Pituitary gland
C Kelenjar adrinal
Adrenal Gland
D Pankreas
Pancreas

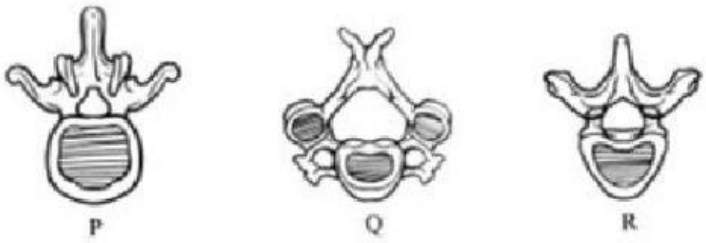
17. Rajah 12 menunjukkan keadaan kulit seorang lelaki
Diagram 12 shows the skin condition of a man

Rajah 12
Diagram 12

Antara penyataan berikut, yang manakah menerangkan keadaan tersebut?
Which of the following statement best explain the condition?

A Pengembangan kapilari darah
Dilation of blood capillary
B Pencerutan kapilari darah
Constriction of blood capillaries
C Otot rangka mengecut dan mengendur dengan aktif
Skeletal muscle contract and relax actively
D Kelenjar peluh tidak dirangsangkan
The sweat gland is not stimulated

18. Rajah 13 menunjukkan vertebra manusia, P, Q dan R.
Diagram 13 shows the human vertebrae, P, Q, and R

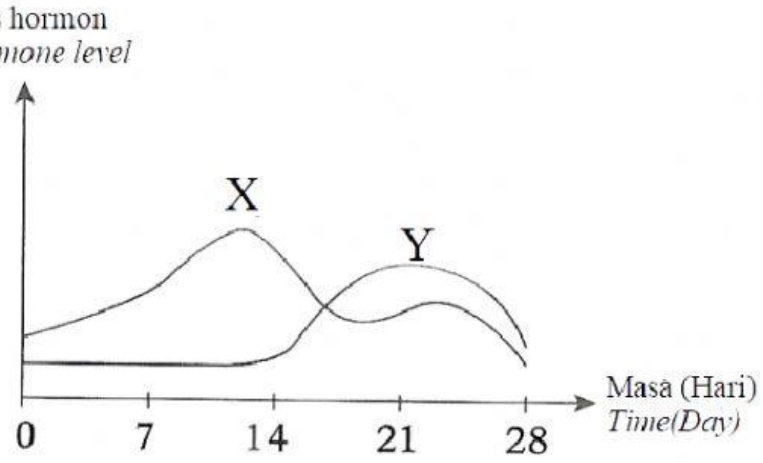


Rajah 13
Diagram 13

Antara yang berikut yang manakah menunjukkan kedudukan yang betul bagi P, Q, dan R?
Which of the following shows the correct location of P, Q and R?

	P	Q	R
A	Toraks *Thorax*	Leher *Neck*	Abdomen *Abdomen*
B	Leher *Neck*	Toraks *Thorax*	Abdomen *Abdomen*
C	Toraks *Thorax*	Abdomen *Abdomen*	Leher *Neck*
D	Abdomen *Abdomen*	Leher *Neck*	Toraks *Thorax*

19. Graf dalam Rajah 14 menunjukkan aras dua hormon, X dan Y, semasa kitar haid.
The graph in Diagram 14 shows the level of two hormones, X and Y, during the menstrual cycle.



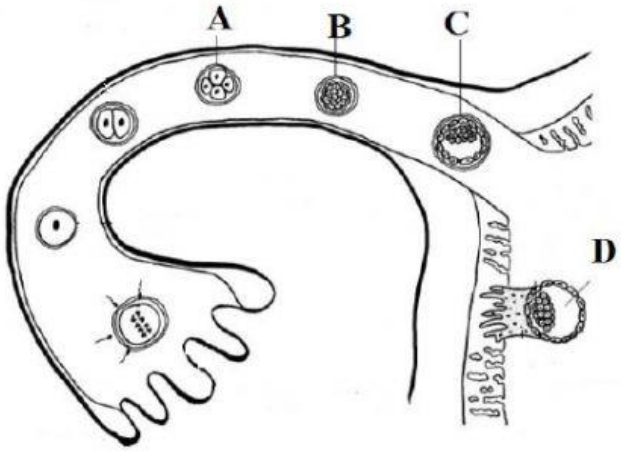
Rajah 14
Diagram 14

Antara pernyataan berikut, yang manakah betul?
Which of the following statements are correct?

I. Peningkatan hormon X memperbaiki endometrium
An increase in hormone X repairs the endometrium
II. Penurunan hormon Y merangsang endometrium untuk luruh
A decrease in hormone Y stimulated the endometrium to shed
III. Penurunan hormon X mengaruh penurunan hormon Y
A decrease in hormone X induces a decrease in hormone Y
IV. Peningkatan hormon Y merangsang ovulasi
An increase in hormone Y stimulates ovulation

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

20. Rajah 15 menunjukkan perkembangan zigot dalam sistem pembiakan perempuan.
Diagram 15 shows the development of the zygote in the female reproductive system.



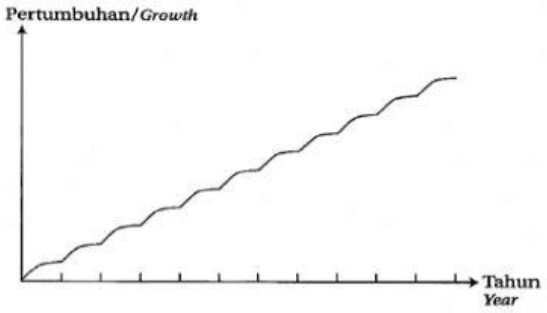
Rajah 15
Diagram 15

Antara bahagian berlabel **A**, **B**, **C** dan **D**, yang manakah merupakan morula?
Which of the labelled parts, **A**, **B**, **C** *or* **D**, *is a morula?*

21. Antara sel berikut, yang manakah membentuk tisu asas dalam tumbuhan?
Which of the following cells form the ground tissue in plants?

A Sel epidermis
Epidermal cells
B Sel mesofil palisad
Palisade mesophyll cells
C Sel pengawal
Guard cells
D Sel parenkima
Parenchyma cells

22. Rajah 16 menunjukkan lengkung pertumbuhan bagi suatu tumbuhan.
Diagram 16 shows the growth curve of a plant.



Rajah 16
Diagram 16

Manakah antara tumbuhan berikut mempunyai lengkung pertumbuhan ini?
Which of the following plant has this growth curve?

A Pokok bunga balung ayam
Silver cock's comb
B Pokok labu
Pumpkin
C Kubis
Cabbage
D Rumput kerbau
Cow grass

23. P, Q, R, S dan T merupakan sesetengah struktur dalaman daun.
P, Q, R, S and T are some of the internal structures of a leaf.

P – Sel epidermis bawah
Lower epidermis cell
Q – Sel mesofil berspan
Spongy mesophyll cell
R – Sel mesofil palisad
Palisade mesophyll cell
S – Sel rakan
Companion cell
T – Sel pengawal
Guard cell

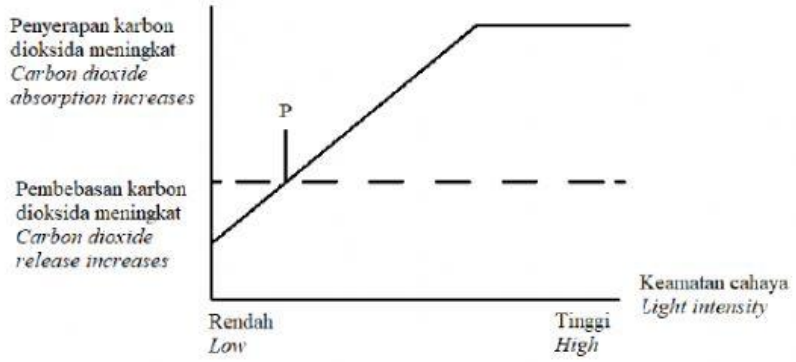
Struktur yang manakah boleh menjalankan fotosintesis?
Which structures can carry out photosynthesis?

A P, Q dan R
P, Q and R
B P, R dan S
P, R and S
C Q, R dan S
Q, R and S
D Q, R dan T
Q, R and T

24. Antara yang berikut, yang manakah dihasilkan semasa tindak balas bersandarkan cahaya dalam fotosintesis?
Which of the following is produced during the light-dependent reaction of photosynthesis?

A Tenaga
Energy
B Oksigen
Oxygen
C Glukosa
Glucose
D Karbon dioksida
Carbon dioxide

25. Rajah 17 menunjukkan graf isipadu karbon dioksida yang diambil atau dibebaskan oleh tumbuhan di dalam hutan pada keamatan cahaya yang berbeza.
Diagram 17 shows the graph of the volume of carbon dioxide taken in or released by a plant in a forest at different light intensities.

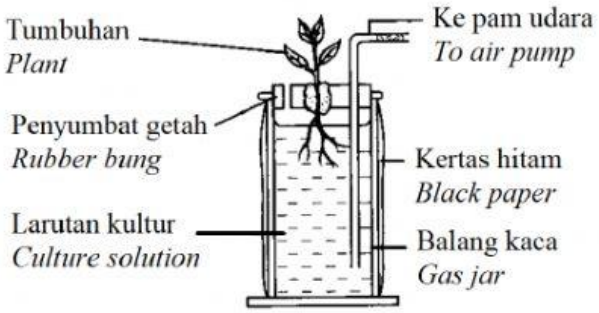


Rajah 17
Diagram 17

Terangkan apa yang berlaku pada titik P.
Explain what happen at point P.

A Kadar penghasilan karbon dioksida semasa respirasi sama dengan kadar penggunaan karbon dioksida semasa fotosintesis
Rate of carbon dioxide produced during respiration is equal to the rate of carbon dioxide consumption during photosynthesis
B Kadar penghasilan karbon dioksida semasa respirasi lebih tinggi daripada kadar penggunaan karbon dioksida semasa fotosintesis
Rate of carbon dioxide produced during respiration is higher than the rate of carbon dioxide consumption during photosynthesis.
C Kadar penghasilan karbon dioksida semasa respirasi lebih rendah daripada kadar penggunaan karbon dioksida semasa fotosintesis
Rate of carbon dioxide produced during respiration is lower than the rate of carbon dioxide consumption during photosynthesis

26 Rajah 18 menunjukkan satu kajian yang dijalankan untuk menyiasat kesan kekurangan makronutrien dalam tumbuhan.
Diagram 18 shows a study carried out to investigate the effects of macronutrient deficiencies in a plant.

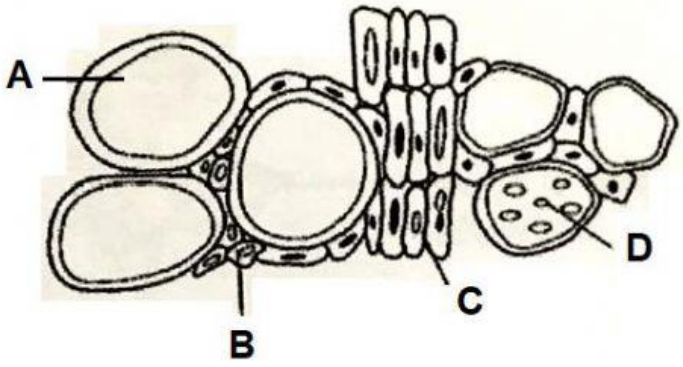


Rajah 18
Diagram 18

Pada akhir eksperimen ini, daun tumbuhan menjadi kuning dan akhirnya mati.
Apakah nutrien yang kurang dalam tumbuhan ini?
At the end of this experiment, the leaves of this plant turned yellow and eventually died.
What nutrient is deficient in this plant?

A Kalsium
Calcium
B Nitrogen
Nitrogen
C Fosforus
Phosphorus
D Magnesium
Magnesium

27 Rajah 19 menunjukkan keratan rentas berkas vaskular suatu tumbuhan.
Diagram 19 shows cross section of a vascular bundle of a plant.



Rajah 19
Diagram 19

Tumbuhan tersebut didedahkan kepada radioaktif karbon dan cahaya selama beberapa jam. Antara tisu berlabel **A, B, C** atau **D**, yang manakah paling awal dikesan mengandungi karbon radioaktif?
The plant is exposed to radioactive carbon dioxide and light for a few hours.
Which tissue labelled **A, B, C** *or* **D** *is the first to have a trace of radioactive carbon?*