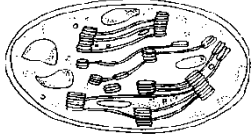





1 Which of the following of organelle is matched correctly to its function.

Antara organel berikut, yang manakah dipadankan betul dengan fungsinya.

	Organelle / Organel	Function / Fungsi
A		Produce energy <i>Menghasilkan tenaga</i>
B		Synthesis lipid <i>Sintesis lipid</i>
C		Modify protein <i>Ubahsuai protein</i>
D		Absorb sunlight energy <i>Menyerap tenaga cahaya matahari</i>

2. Diagram 1 shows a *Paramecium* sp. lives in freshwater.

Rajah 1 menunjukkan Paramecium sp. yang hidup di air tawar.

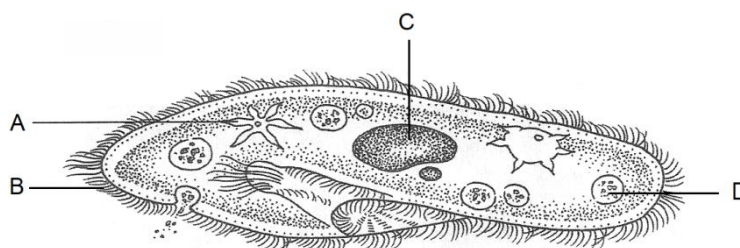


Diagram 1 / Rajah 1

Which parts labelled A, B, C or D if not functioning will causes the *Paramecium* sp burst?

Antara bahagian berlabel A, B, C dan D, yang manakah jika tidak berfungsi akan menyebabkan Paramecium sp meletus?

3. Diagram 2 shows a type of tissue in human.
Rajah 2 menunjukkan sejenis tisu dalam manusia.

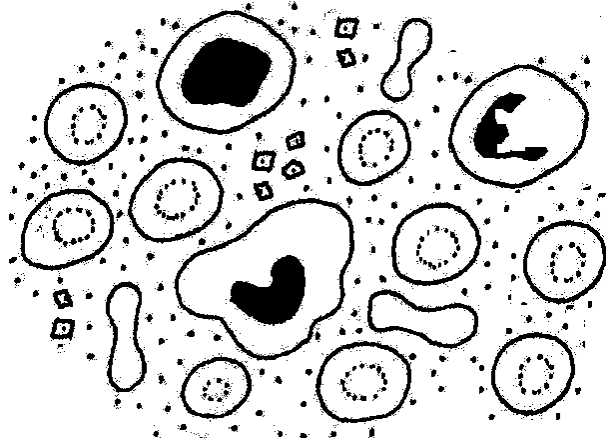


Diagram 2 / *Rajah 2*

Which of the following cell is found abundantly in the tissue?

Antara sel berikut, yang manakah dijumpai dengan banyak dalam tisu tersebut?

- A Platelet/ platlet
 - B Red blood cell / Sel darah merah
 - C Phagocyte cell / Sel fagosit
 - D White blood cell / Sel darah putih
4. Why preservation of green chili using vinegar?
- Mengapa pengawetan cili hijau menggunakan cuka?*
- A Vinegar has high pH
Cuka mempunyai pH tinggi
 - B Water diffuses into green chili tissue
Air meresap masuk ke dalam tisu cili hijau
 - C Vinegar prevents bacterial growth in the chili tissue
Cuka menghalang pertumbuhan bakteria dalam tisu cili
 - D Make the green chili become sour
Menjadikan cili hijau masam.

5 Diagram 3 is a graph shows the changes in mass of potato strips immersed in different concentrations of sucrose solution.

Rajah 3 adalah satu graf menunjukkan perubahan jisim jalur ubi kentang yang direndam dalam larutan sukrosa yang berbeza.

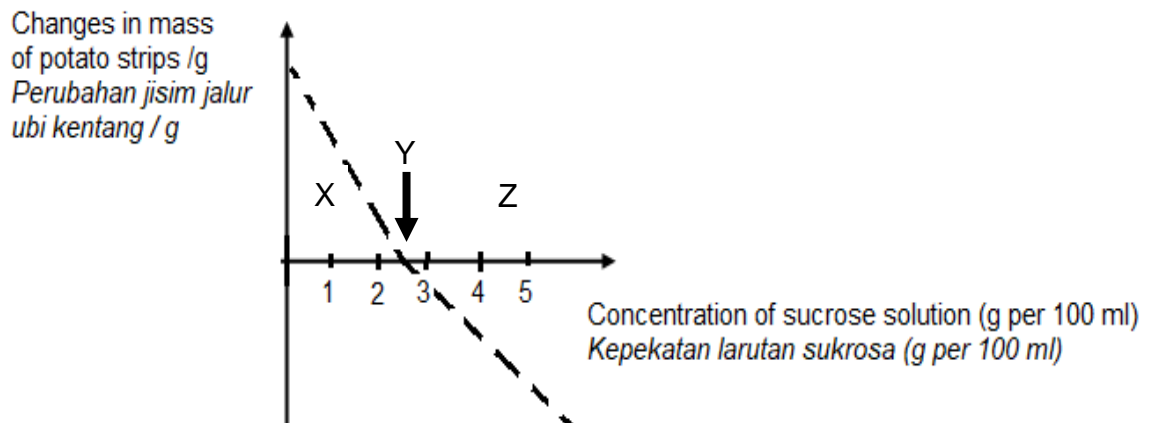


Diagram 3 / Rajah 3

What is solution X, Y and Z?

Apakah larutan X, Y dan Z?

	X	Y	Z
A	Isotonic <i>Isotonik</i>	Hypertonic <i>Hipertonik</i>	Hypotonic <i>Hipotonik</i>
B	Hypotonic <i>Hipotonik</i>	Hypertonic <i>Hipertonik</i>	Isotonic <i>Isotonik</i>
C	Hypotonic <i>Hipotonik</i>	Isotonic <i>Isotonik</i>	Hypertonic <i>Hipertonik</i>
D	Hypertonic <i>Hipertonik</i>	Isotonic <i>Isotonik</i>	Hypotonic <i>Hipotonik</i>

6 Diagram 4 shows a proces that occurs in human digestive system.

Rajah 4 menunjukkan satu proses yang berlaku dalam sistem pencernaan manusia.

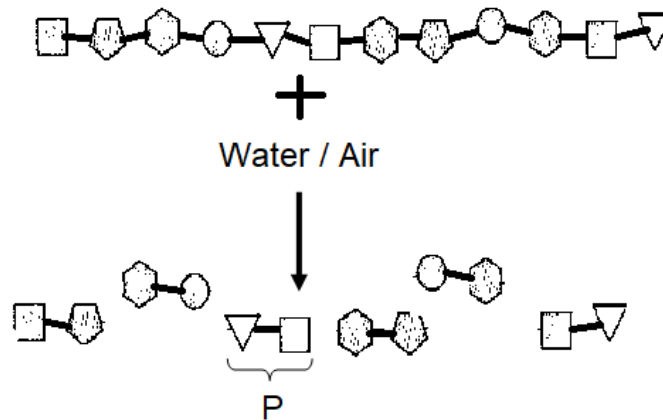


Diagram 4 / *Rajah 4*

Which of the following is P?

Antara yang berikut, yang manakah P?

A Protein / *Protein*

B Dipeptide / *Dipeptida*

C Amino acid / *Asid amino*

D Polypeptide / *Poliipeptida*

7 The following are organic compound which can be found in foods.

Berikut adalah sebatian organik yang boleh dijumpai dalam makanan.

Maltose, sucrose, lactose
Maltosa, sukrosa, laktosa

All organic compounds above is made up of

Semua sebatian organik di atas dibina daripada

A Galactose
Galaktosa

B Fructose
Fruktosa

C Cellulose
Selulosa

D Glucose
Glukosa

8. Diagram 5 shows an enzyme and two different substrates.

Rajah 5 menunjukkan satu enzim dan dua substrat yang berbeza.

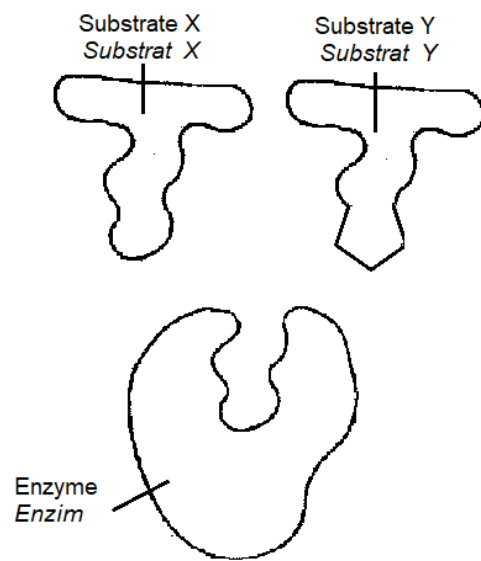
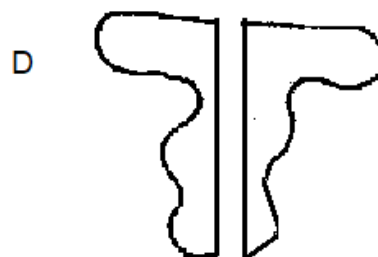
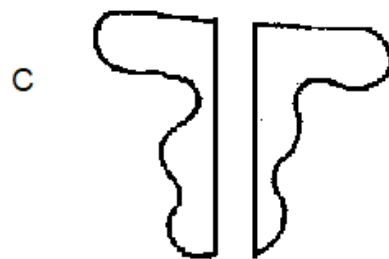
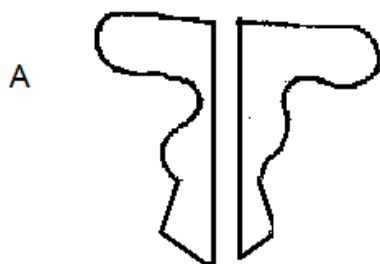


Diagram 5 / *Rajah 5*

Which of the following is a correct product?

Manakah di antara berikut adalah produk yang betul?



- 9 Diagram 6 shows a stage of meiosis I in testis of an animal cell.
Rajah 6 menunjukkan satu peringkat meiosis I dalam testis satu sel haiwan.

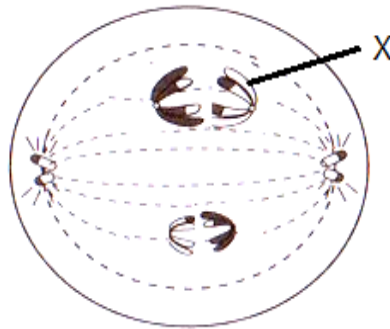


Diagram 6 / *Rajah 6*

How many numbers of chromosomes in sperm cell if chromosom X fail to separate?
Berapakah bilangan kromosom dalam sel sperma jika kromosom X gagal berpisah ?

- | | | | |
|---|---|---|---|
| A | 2 | B | 3 |
| C | 4 | D | 8 |
10. Diagram 7 shows a longitudinal section of a root tip.

Rajah 7 menunjukkan satu keratan memanjang hujung akar.

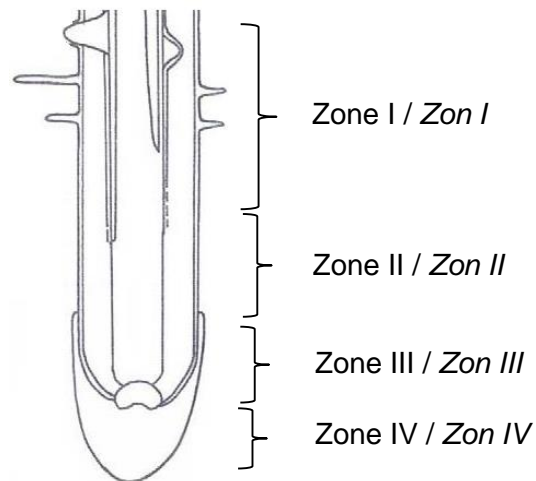


Diagram 7 / *Rajah 7*

Which zone undergoes mitosis?

Zon yang mana menjalankan mitosis?

- A Zone I / *Zon I*
- B Zone II / *Zon II*
- C Zone III / *Zon III*
- D Zone IV / *Zon IV*

11 Which of the following statements is correct about the importance of mitosis?

Antara kenyataan berikut, yang manakah benar mengenai kepentingan mitosis?

- A Produce variation
Menghasilkan variasi
- B Cause the growth of embryo
Menyebabkan pertumbuhan embrio
- C Produces gamete cell
Menghasilkan sel gamet
- D Produce two daughter cells without pairs of chromosomes
Menghasilkan dua sel anak tanpa pasangan kromosom

12. Diagram 8 shows the phases of a cell cycle G1, S, G2, and M .

Rajah 8 menunjukkan fasa-fasa dalam kitar sel G1, S,G2 dan M

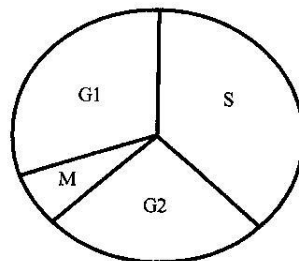


Diagram 8 / *Rajah 8*

Which of the following phase of the cell cycle is matched correctly ?

Antara fasa kitar sel berikut, yang manakah dipadankan dengan betul?

A	M	Synthesis of organelle / <i>Sintesis organel</i>
B	G1	Accumulation of energy / <i>Pengumpulan tenaga</i>
C	S	Synthesis of DNA / <i>Sintesis DNA</i>
D	G2	Cell division / <i>Pembahagian sel</i>

13 Diagram 9 shows Malaysian Healthy Plate Campaign 'Quarter-Quarter-Half'.

Rajah 9 menunjukkan Kempen Pinggan Sihat Malaysia 'Suku-Suku-Separuh'.



Diagram 9 / *Rajah 9*

Which of the following food class should to be taken most ?

Antara yang berikut, kelas makanan yang manakah perlu diambil paling banyak ?

A Fibre / *Serat*

B Protein / *Protein*

C Carbohydrate / *Karbohidrat*

D Lipid / *Lemak*

14 The following information is about amino acids .

Maklumat berikut adalah mengenai asid amino.

Excess amino acid are broken down in the liver through process Y because it cannot be stored in the body.

Asid amino yang berlebihan diuraikan di dalam hati melalui proses Y kerana ia tidak boleh disimpan di dalam badan.

What is process Y?

Apakah proses Y?

A Absorption / *Penyerapan*

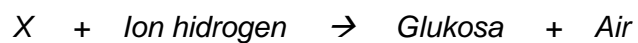
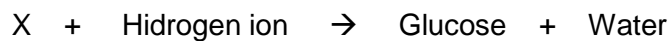
B Defecation / *Penyahtinjaan*

C Condensation / *Kondensasi*

D Deamination / *Pendeaminaan*

15 The equation shows a reaction during photosynthesis.

Persamaan menunjukkan satu tindak balas semasa fotosintesis.



What is X?

Apakah X ?

A Oxygen

C Water

Oksigen

Air

B Hydroxyl ion

D Carbon dioxide

Ion hidroksil

Karbon dioksida

- 16 The following shows the result to determine the percentage of vitamin C in guava.
Berikut adalah keputusan untuk menentukan peratus vitamin C dalam jambu batu.

Volume of DCPIP solution = 1.0 ml

Isipadu larutan DCPIP

Volume of guava juice = 0.8 ml

Isipadu jus jambu batu

Volume of 0.1% ascorbic acid to decolourise 1ml of DCPIP = 1.2 ml

Isipadu 0.1% asid askorbik untuk melunturkan 1ml DCPIP

Calculate the percentage of vitamin C in guava juice?

Hitungkan peratus vitamin C dalam jus jambu batu?

A 0.67 %

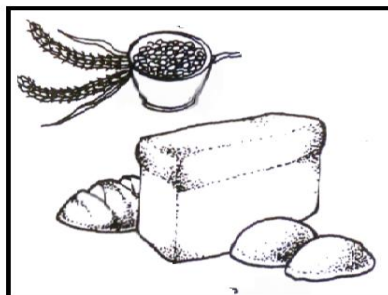
B 0.07 %

C 0.15 %

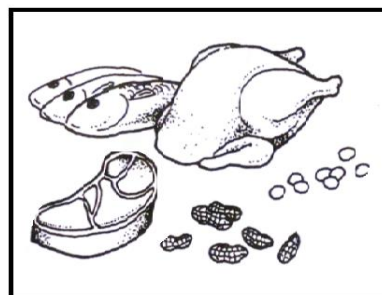
D 1.50 %

- 17 Diagram 10 shows two classes of food.

Rajah 10 menunjukkan dua kelas makanan.



X



Y

Diagram 10 / *Rajah 10*

Which of the following health problem are caused by taking too much food in a long time?

Antara yang berikut, masalah kesihatan yang manakah disebabkan mengambil lebih

makanan dalam jangka masa yang lama?

	X	Y
A	Gout	Osteoporosis
	<i>Gout</i>	<i>Osteoporosis</i>
B	Gout	Diabetes mellitus
	<i>Gout</i>	<i>Kencing manis</i>
C	Diabetes mellitus	Gout
	<i>Kencing manis</i>	<i>Gout</i>
D	Osteoporosis	Diabetes mellitus
	<i>Osteoporosis</i>	<i>Kencing manis</i>

18 Which of the following is an effect of malnutrition?

Antara yang berikut, yang manakah kesan malnutrisi?

- A Goiter / *Goiter*
- B Colour blindness / *Buta warna*
- C Dwarfism / *Kekerdilan*
- D Muscular dystrophy / *Distrofi otot*

19 Diagram 11 is a table shows the composition of four samples of air.

Rajah 11 adalah jadual menunjukkan komposisi empat sampel udara.

Air sample / Sampel udara	Oxygen / Oksigen (%)	Carbon dioxide / Karbon dioksida (%)	Water vapour / Wap air
A	21	0.03	Saturated / <i>tepu</i>
B	21	0.03	A little / <i>sedikit</i>
C	16	3.0	Saturated / <i>tepu</i>
D	16	3.0	A little / <i>sedikit</i>

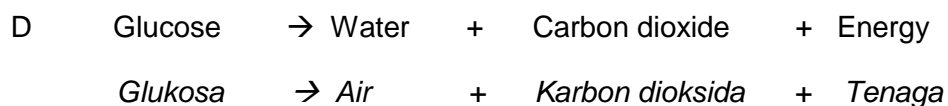
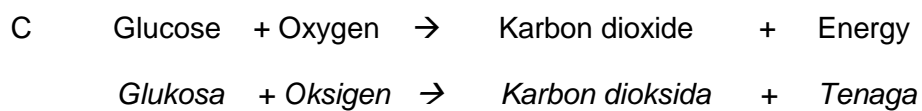
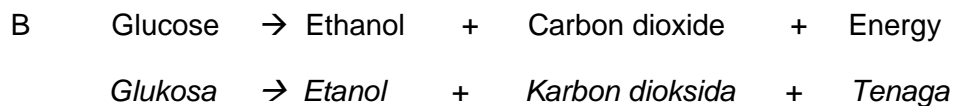
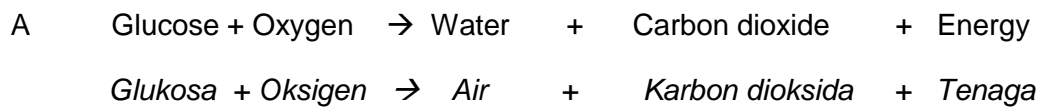
Diagram 11 / *Rajah 11*

Which of the sample shows exhaled air?

Sampel udara yang manakah menunjukkan udara hembusan ?

20 Which of the following equation is correct about respiration at the part of paddy plant which is submerged in water?

Antara persamaan berikut, yang manakah benar tentang respirasi pada bahagian pokok padi yang ditenggelami air ?



21 Diagram 12 shows an experiment to investigate fermentation on yeast.

Rajah 12 menunjukkan satu eksperimen mengkaji fermentasi ke atas yis.

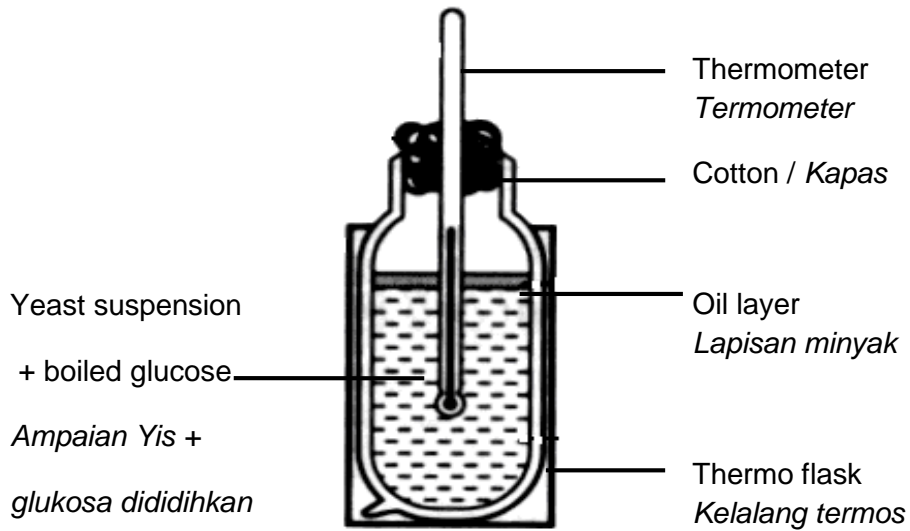


Diagram 12 / *Rajah 12*

Which of the following causes lack of oxygen in the thermo flask ?

Manakah antara berikut, menyebabkan kekurangan oksigen dalam kelalang termos itu?

- I Thermo flask shape
Bentuk kelalang termos
- II Cotton
Kapas
- III Boiled glucose
Glukosa dididih
- IV Oil layer
Lapisan minyak

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

22 Diagram 13 shows a part of the respiratory structure of human.
Rajah 13 menunjukkan sebahagian struktur respirasi manusia.

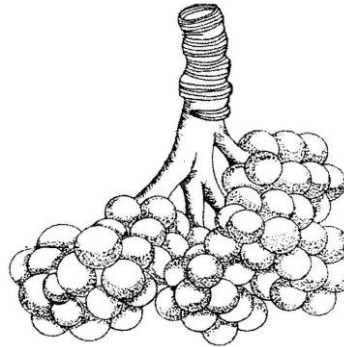


Diagram 13 / *Rajah 13*

What is the characteristic of human's respiratory structure for survival in his habitat?
Apakah ciri struktur respirasi manusia untuk kemandirian dalam habitatnya?

- A A few layers of epithelial cell at alveolus
Beberapa lapis sel epitelium di alveolus.
- B Narrow respiratory tract
Salur respirasi yang sempit
- C Able to expand and contract
Boleh mengembang dan menguncup
- D Has a greater surface area
Mempunyai luas permukaan yang besar

23 Which of the following condition will increase the breathing rate?
Antara keadaan berikut, yang manakah akan meningkatkan kadar pernafasan?

- A Standing at sea level / *Berdiri pada aras laut*

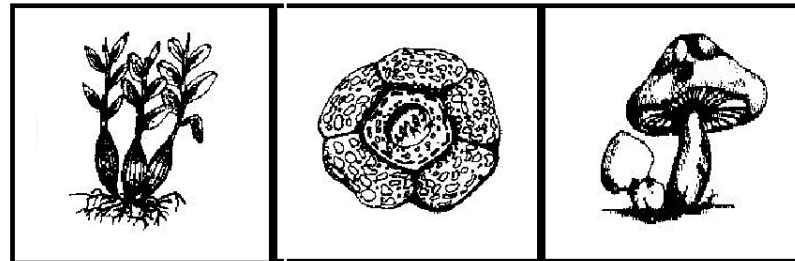
B Driving a car / *Memandu sebuah kereta*

C Listening to the radio / *Mendengar radio*

D Swimming in the pool / *Berenang dalam kolam*

24 Diagram 14 shows organisms R, S and T.

Rajah 14 menunjukkan organisma R, S dan T.



R

S

T

Diagram 14 / *Rajah 14*

Classify the organisms according to the type of interaction.

Kelaskan organisma tersebut mengikut jenis interaksi.

	R	S	T
A	Parasitism <i>Parasitisme</i>	Mutualism <i>Mutualisme</i>	Saprophytism <i>Saprofitisme</i>
B	Mutualism <i>Mutualisme</i>	Saprophytism <i>Saprofitisme</i>	Commensalism <i>Komensalisme</i>
C	Commensalism <i>Komensalisme</i>	Parasitism <i>Parasitisme</i>	Saprophytism <i>Saprofitisme</i>
D	Saprophytism <i>Saprofitisme</i>	Commensalism <i>Komensalisme</i>	Parasitism <i>Parasitisme</i>

25 Which of the following are correct abiotic and biotic factors in a lake?

Antara berikut, yang manakah benar mengenai faktor abiotik dan biotik di tasik?

	Abiotic Factor/ <i>Faktor abiotik</i>	Biotic factor/ <i>Faktor biotik</i>
A	Phytoplankton / <i>Fitoplankton</i>	Guppy fish / <i>Ikan Gupi</i>

B	Temperature / Suhu	pH of water / pH air
C	pH of water / pH air	Phytoplankton / Fitoplankton
D	Guppy fish / Ikan Gupi	Temperature / Suhu

26 Diagram 15 shows a pyramid of a food chain.
Rajah 15 menunjukkan satu piramid rantai makanan.

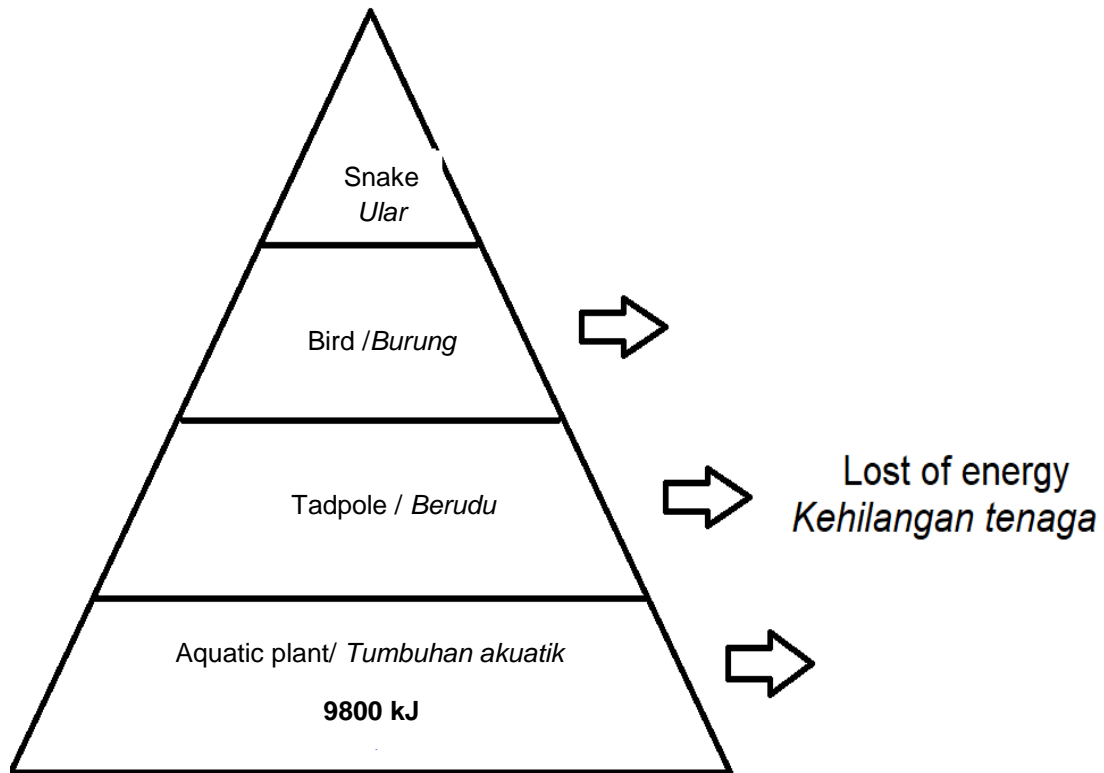


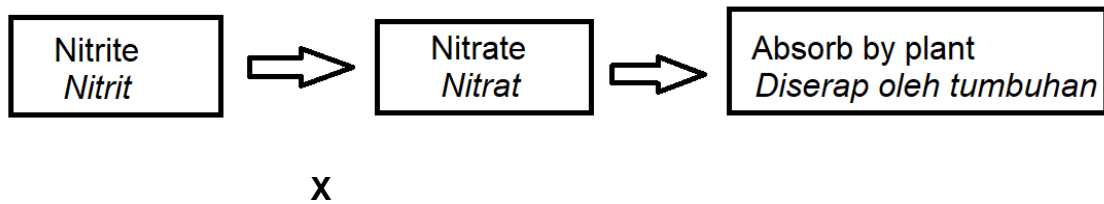
Diagram 15 / *Rajah 15*

How many total energy received by bird?

Berapakah jumlah tenaga yang diterima oleh burung?

- A 98 kJ
- B 9.80 kJ
- C 980 kJ
- D 490 kJ

27 The following shows a part of the nitrogen cycle.
Berikut adalah sebahagian daripada kitar nitrogen.



Name the bacteria X?

Namakan bakteria X?

A Rhizobium

Rhizobium

C Lactobacillus

Laktobasilus

B Nitrobacter

Nitrobakter

D Nitrosomonas

Nitrosomonas.

28 Which of the following caused by deforestation ?

Manakah antara yang berikut disebabkan oleh penyahhutan?

I Soil erosion / *Hakisan tanah*

II Air pollution / *Pencemaran udara*

III Rise in sea level / *Peningkatan aras laut*

IV Decrease in amount of carbon dioxide / *Pengurangan jumlah karbon dioksida*

A I and II / *I dan II*

B II and IV / *II dan IV*

C I and III / *I dan III*

D III and IV / *III dan IV*

29 The data shows the result of experiment to compare the qualities of water at two area P and Q.

Data menunjukkan keputusan eksperimen untuk membandingkan kualiti air di dua kawasan P dan Q.

Water sample Sampel air	Time taken for methylene blue solution to be decolourised (minutes) Masa yang diambil untuk melunturkan warna larutan metilena biru (minit)
Area P / <i>Kawasan P</i>	120
Area Q / <i>Kawasan Q</i>	12

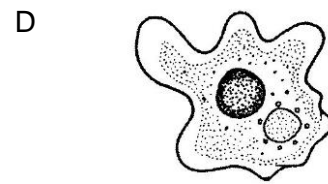
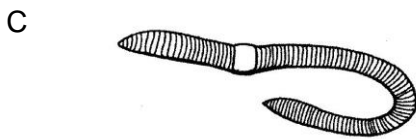
What conclusion can be made from the data shown?

Apakah kesimpulan yang boleh dibuat daripada data yang ditunjukkan?

- A Water sample area Q has higher oxygen content than area P
Sampel air kawasan Q mempunyai kandungan oksigen lebih dari kawasan P
- B Water sample area P has less bacteria than area Q
Sampel air kawasan P mempunyai kurang bakteria dari kawasan Q
- C Water sample area Q has lower B.O.D value than area P
Sampel air kawasan Q mempunyai nilai B.O.D lebih rendah dari kawasan P
- D Water sample area P is more polluted than area Q
Sampel air kawasan P lebih tercemar dari kawasan Q

- 30 Which of the following organism has the largest total surface area to volume ratio?
Antara organisma berikut, yang manakah mempunyai nisbah jumlah luas permukaan kepada isi padu paling besar?

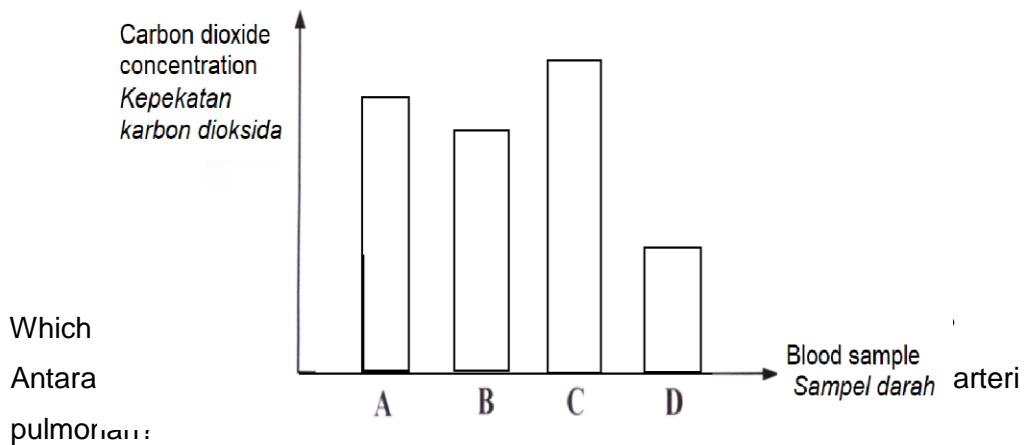




31 Diagram 16 is a bar chart shows the concentration of carbon dioxide in blood sample

which taken from different blood vessels.

Rajah 16 ialah carta palang menunjukkan kepekatan karbon dioksida dalam sampel darah yang diambil daripada salur darah yang berlainan.



32 The statement shows an important of vaccination.

Pernyataan menunjukkan satu kepentingan pemvaksinan.

Vaccination can protect the baby from certain pathogen infections

Pemvaksinan dapat melindungi bayi daripada jangkitan patogen tertentu

Which of the following involve in vaccination?

Antara berikut, yang manakah terlibat dalam pemvaksinan?



33 Diagram 17 shows a human heart.

Rajah 17 menunjukkan satu jantung manusia.

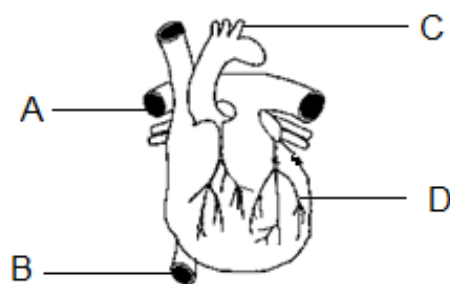


Diagram 17 / *Rajah 17*

Which of the blood vessels A, B, C or D is clogged causing heart attack?

Antara salur darah A, B, C dan D, yang manakah tersumbat menyebabkan serangan jantung?

34 Diagram 18 shows water movement through a tree.

Rajah 18 menunjukkan pergerakan air melalui sebatang pokok.

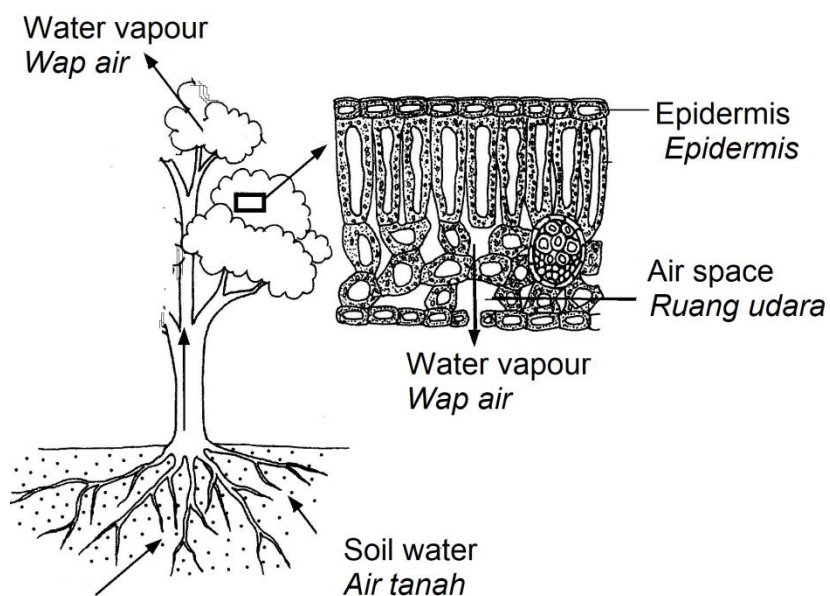


Diagram 18 / *Rajah 18*

Which of the following factors causes the soil water move to the leaves faster ?

Antara faktor berikut, yang manakah menyebabkan air tanah bergerak ke daun dengan lebih cepat?

- A Air movement increases / *Pergerakan udara bertambah*
- B Humidity increases / *Kelembapan udara bertambah*
- C Light intensity decreases / *Keamatan cahaya berkurang*
- D Surrounding temperature decreases / *Suhu persekitaran berkurang*

35 Diagram 19 shows a part of human vertebrae column.

Rajah 19 menunjukkan sebahagian turus vertebra manusia.

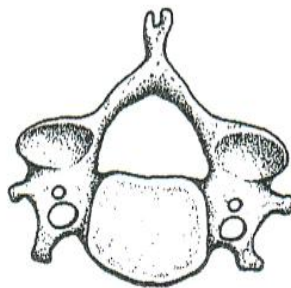


Diagram 19 / *Rajah 19*

Name the vertebrae.

Namakan vertebra tersebut.

A Atlas / *Atlas*

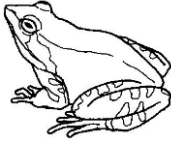
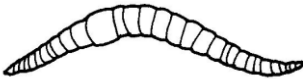
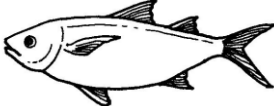
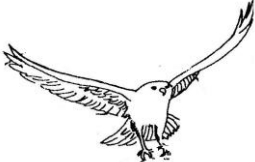
B Cervical / *serviks*

C Thoracic / toraks

D Lumbar / Lumbar

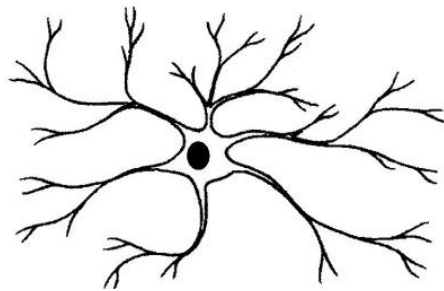
36 Which of the following organism is matched correctly to the antagonistic muscle which is used in movement and the type of its skeleton?

Antara organisma berikut, yang manakah dipadankan dengan betul bagi otot antagonistik yang digunakan dalam pergerakan dan jenis rangkanya.

	Organism <i>Organisma</i>	Antagonistic muscle <i>Otot antagonistik</i>	Type of skeleton <i>Jenis rangka</i>
A		Flexor and extensor <i>Fleksor dan ekstensor</i>	Endoskeleton <i>Rangka dalam</i>
B		Right and left myotome <i>Miotom kanan dan kiri</i>	Hydrostatic skeleton <i>Rangka hidrostatik</i>
C		Circular and longitudinal <i>Otot lingkar dan membujur</i>	Endoskeleton <i>Rangka dalam</i>
D		Pectoralis major and minor <i>Pektoralis major dan minor</i>	Exoskeleton <i>Rangka luar</i>

37 Diagram 20 shows a type of neurone.

Rajah 20 menunjukkan sejenis neuron.



Diagam 20 / *Rajah 20*

Where is the location of this neurone in reflex arch?

Di manakah lokasi neuron ini dalam arka refleks?

- | | | | |
|---|---------------------|---|--------------------|
| A | Grey matter | B | White matter |
| | <i>Jirim kelabu</i> | | <i>Jirim putih</i> |
| C | Ganglion | D | Sensory organ |
| | <i>Ganglion</i> | | <i>Organ deria</i> |

38 Which of the following is the effect of lack of ADH secretion?

Antara yang berikut, yang manakah kesan kekurangan rembesan ADH?

- A Cause oedema
Menyebabkan edema
- B Excrete small amount of urine

Menyingkirkan sedikit air kencing

C Excrete large amount of urine

Menyingkirkan banyak air kencing

D Urine becomes more concentrated

Air kencing menjadi lebih pekat

39 Diagram 21 shows a graph of the changes of glucose level in an individual' blood after eating rice.

Rajah 21 menunjukkan satu graf perubahan aras glukosa dalam darah seorang individu selepas makan nasi.

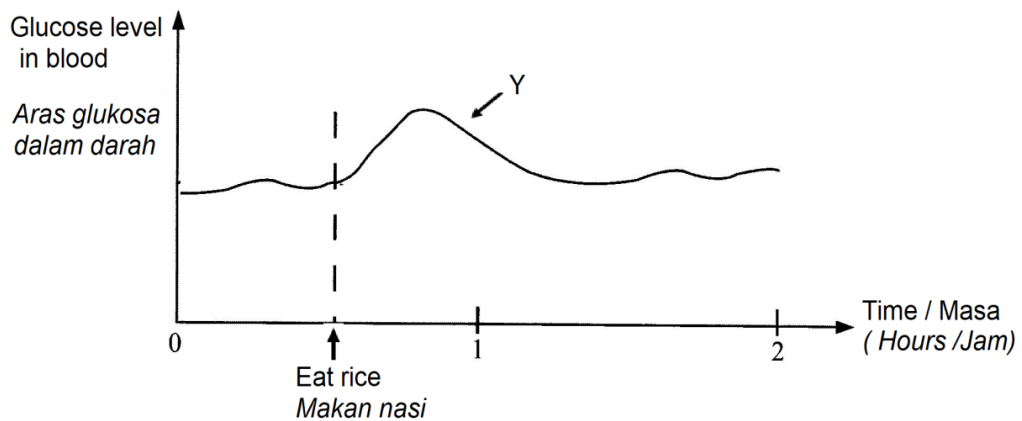


Diagram 21 / Rajah 21

What is hormone Y?

Apakah hormon Y?

A Insulin

Insulin

B Glucagon

Glukagon

C Adrenaline

Adrenalina

D Aldosterone

Aldosteron

40 Which of the following is correct when an individual is at a snowy area?

Antara yang berikut, yang manakah benar apabila seorang individu berada di kawasan bersalji?

Metabolism rate <i>Kadar metabolisma</i>	Adrenaline secretion rate <i>Kadar rembesan adrenalina</i>
---	---

A	Decrease <i>Berkurang</i>	Increase <i>Bertambah</i>
B	Increase <i>Bertambah</i>	Increase <i>Bertambah</i>
C	Decrease <i>Berkurang</i>	Decrease <i>Berkurang</i>
D	Increase <i>Bertambah</i>	Decrease <i>Berkurang</i>

41 Diagram 22 shows a cross section of a human brain.

Rajah 22 menunjukkan satu keratan rentas otak manusia.

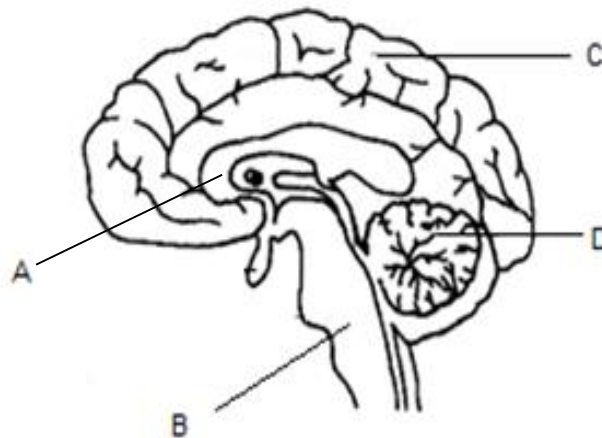


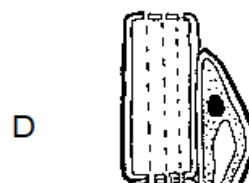
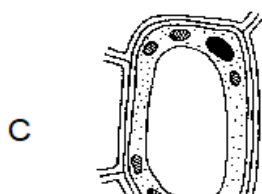
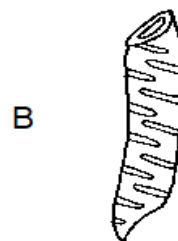
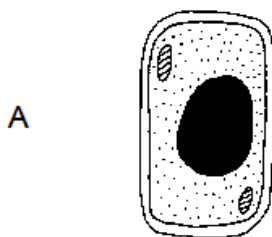
Diagram 22 / *Rajah 22*

Which part of labelled A, B, C or D controls body temperature?

Antara bahagian berlabel A, B, C dan D, yang manakah mengawal suhu badan?

42 Which of the following cell is present in elongation zone of a root tip.

Antara berikut, sel yang manakah berada dalam zon pemanjangan satu hujung akar.



43 The statement is refer to a condition during pregnancy.

Pernyataan berikut merujuk kepada keadaan semasa kehamilan.

From the third month until a mother safely delivered without experiencing a miscarriage

Dari bulan ketiga sehingga seorang ibu selamat bersalin tanpa mengalami keguguran

Which of the following hormone concentration is the most in the mother's blood.

Antara berikut, kepekatan hormon yang manakah paling banyak dalam darah ibu tersebut?

- A Oestrogen / Estrogen
- B Progesterone / Progesteron
- C Luteinising hormone / Hormon peluteinan
- D Follicle stimulating hormon / Hormon perangsang folikel

44 Diagram 23 shows a production of sperms after meiosis II.

Rajah 23 menunjukkan penghasilan sperma selepas meiosis II.

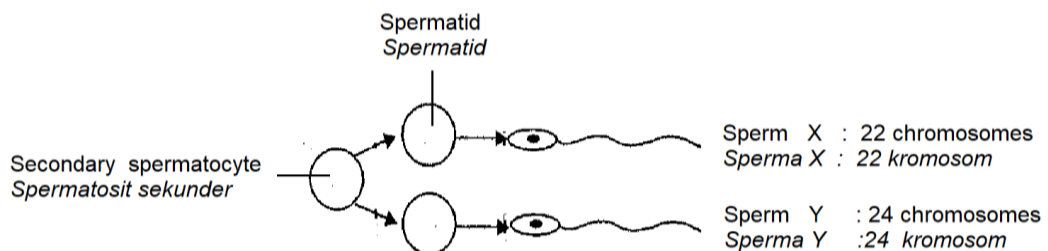


Diagram 23 / Rajah 23

What is the disease can be relate if sperm Y fertilises with normal ovum?

Apakah penyakit yang boleh dikaitkan jika sperma Y bersenyawa dengan ovum yang normal?

- | | | | |
|---|---|---|--|
| A | Down 's syndrome
<i>Sindrom Down</i> | B | Turner's syndrome
<i>Sindrom Turner</i> |
| C | Haemophilia
<i>Hemofilia</i> | D | Albinism
<i>Albinisme</i> |

45 Diagram 24 shows a structure of flower.

Rajah 24 menunjukkan satu struktur bunga.

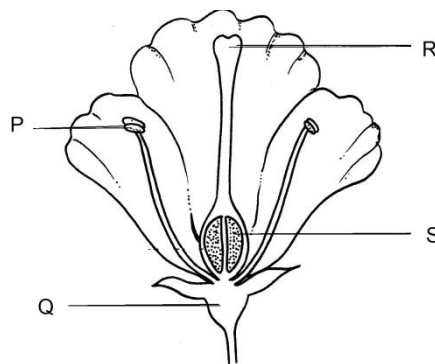


Diagram 24 / *Rajah 24*

Which groups of structures produce gametes?

Antara berikut, kumpulan struktur yang manakah menghasilkan gamet ?

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

46 Diagram 25 shows the karyotype of an individual.

Rajah 25 menunjukkan kariotip seorang individu.

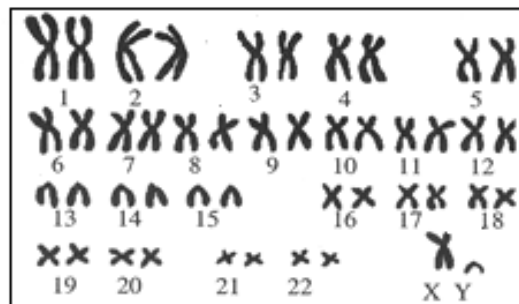


Diagram 25 / *Rajah 25*

Which of the following shows the number of chromosomes in a gamete produced by the individual?

Antara berikut, yang manakah menunjukkan bilangan kromosom dalam satu gamet yang dihasilkan oleh individu tersebut?

- A 22 + XY
- B 22 + X
- C 44 + Y
- D 44 + XY

47 Diagram 26 is a schematic diagram for the blood group in a family.

Rajah 26 ialah rajah skema bagi kumpulan darah dalam satu keluarga.

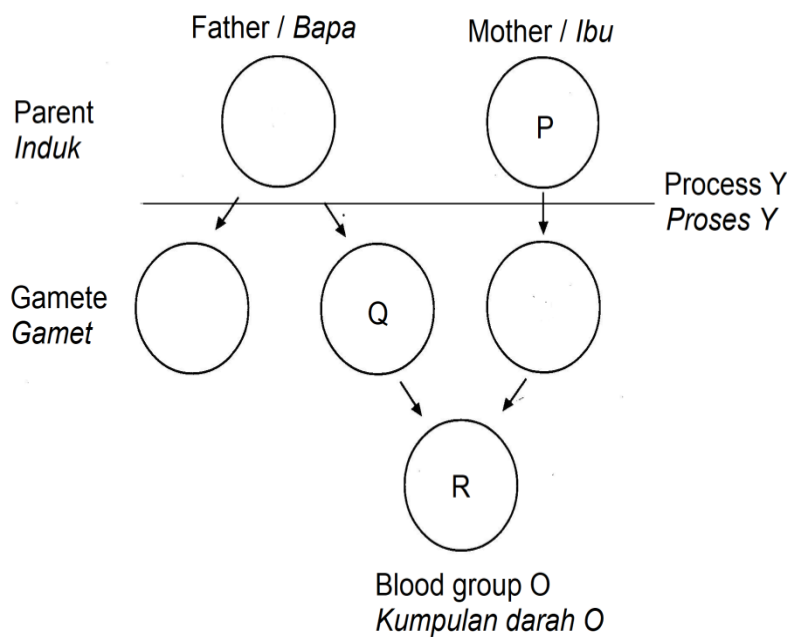


Diagram 26 / Rajah 26

A father has blood group A and his wife has blood group B.

Which of the following are correct?

Bapa mempunyai kumpulan darah A dan isterinya mempunyai kumpulan darah B

Antara berikut, yang manakah benar?

	Genotype P Genotip P	Process Y Proses Y	Gamete Q Gamet Q
A	$I^B I^B$	Meiosis Meiosis	I^B
B	$I^B I^O$	Fertilization Persenyawaan	I^O

C	$I^B I^O$	Meiosis <i>Meiosis</i>	I^O
D	$I^B I^B$	Fertilization <i>Persenyawaan</i>	I^B

48 The table shows a variation of 20 students in the same class.

Jadual menunjukkan variasi bagi 20 pelajar dalam kelas yang sama.

Height (cm) <i>Ketinggian (cm)</i>	160-164	165-169	170-174	175-179	180-185
Number of student <i>Bilangan murid</i>	1	6	8	3	2

Which of the following is correct explanation about the trait?

Antara yang berikut, penerangan yang manakah benar mengenai trait tersebut?

- A Trait is controlled by single gene
Trait dikawal oleh gen tunggal
- B Affected by gene only
Dipengaruhi oleh gen sahaja
- C Example of discontinuous variation
Contoh variasi tidak selanjar
- D Form a normal distribution graph
Membentuk graf taburan normal

49 Which of the following defects are caused by gene mutation?

Antara kecacatan berikut, yang manakah disebabkan oleh mutasi gen?

- I Albinism / *Albinisme*
- II Haemophilia / *Hemofilia*
- III Down's syndrome / *Sindrom Down*
- IV Klinefelter's syndrome / *Sindrom Klinefelter*

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

50 The statement shows the effect of environmental factor on variation.

Pernyataan berikut menunjukkan kesan faktor persekitaran ke atas variasi.

The plant *Hydrangea macrophylla* sp. produces two colours of flower either pink or blue. The colours of flower is determined by soil pH.

*Tumbuhan *Hydrangea macrophylla* sp. menghasilkan dua warna bunga sama ada merah jambu atau biru. Warna bunga ditentukan oleh pH tanah.*

Which of the following explain the situation?

Antara yang berikut, yang manakah menerangkan situasi tersebut?

	Colour of flower <i>Warna bunga</i>	Soil pH <i>pH tanah</i>
A	Blue <i>Biru</i>	Alkali <i>Alkali</i>
B	Pink <i>Merah jambu</i>	Alkali <i>Alkali</i>
C	Blue <i>Biru</i>	Neutral <i>Neutral</i>
D	Pink <i>Merah jambu</i>	Acid <i>Asid</i>