

1. Diagram 1 shows the flow chart of reflex arc on touched by a hot object.
Rajah 1 menunjukkan carta aliran arka refleks bagi tersentuh objek panas.

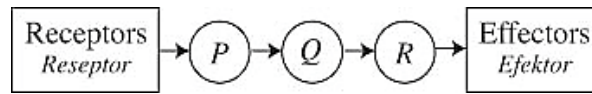


Diagram 1 / *Rajah 1*

What do *P*, *Q* and *R* represent?

Apakah yang diwakili oleh P, Q, dan R?

	<i>P</i>	<i>Q</i>	<i>R</i>
A	Sensory neurone <i>Neuron deria</i>	Motor neurone <i>Neuron motor</i>	Relay neurone <i>Neuron perantaraan</i>
B	Relay neurone <i>Neuron perantaraan</i>	Sensory neurone <i>Neuron deria</i>	Motor neurone <i>Neuron motor</i>
C	Relay neurone <i>Neuron perantaraan</i>	Motor neurone <i>Neuron motor</i>	Sensory neurone <i>Neuron deria</i>
D	Sensory neurone <i>Neuron deria</i>	Relay neurone <i>Neuron perantaraan</i>	Motor neurone <i>Neuron motor</i>

2. Diagram 2 shows the human endocrine system.
Rajah 2 menunjukkan sistem endokrin manusia.

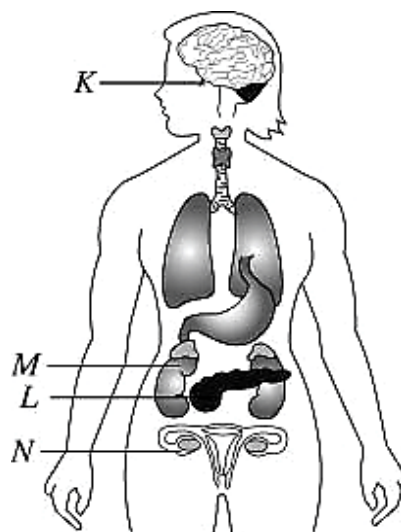


Diagram 2 / *Rajah 2*

Choose the correct match between the labelled endocrine glands and their functions.

Pilih padanan yang betul untuk kelenjar endokrin berlabel dan fungsinya.

	Endocrine gland <i>Kelenjar endokrin</i>	Function <i>Fungsi</i>
A	<i>K</i>	To control the secretion of hormones by the other endocrine glands <i>Mengawal perembesan hormon oleh kelenjar endokrin lain</i>
B	<i>L</i>	To control metabolic rate <i>Mengawal kadar metabolik</i>
C	<i>M</i>	To control blood glucose level <i>Mengawal aras glukosa dalam darah</i>
D	<i>N</i>	To control the amount of mineral salts in blood <i>Mengawal jumlah garam mineral dalam darah</i>

3. Diagram 3 shows an endocrine gland.

Rajah 3 menunjukkan satu kelenjar endokrin.

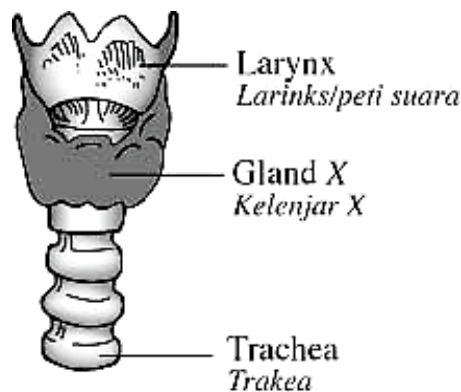


Diagram 3 / *Rajah 3*

The deficiency of a type of hormone secreted by gland X will cause

Kekurangan hormon yang dirembes oleh kelenjar X akan menyebabkan

- | | | | |
|----------|------------------------------|----------|--|
| A | Goitre
<i>Goiter</i> | C | Diabetes mellitus
<i>Penyakit kencing manis</i> |
| B | Myxedema
<i>Myscedema</i> | D | Addison's disease
<i>Penyakit Addison</i> |

4 Ali is involved in serious accident. His cerebellum is being injured. What will happen to Ali?

Ali terlibat dalam satu kemalangan yang serius. Serebelumnya telah tercedera. Apakah yang akan berlaku terhadap Ali?

- A** He may lose sense of balance and body coordination.
Dia mungkin kehilangan kesedaran seimbang dan koordinasi badan.
- B** He may not able to carry out various involuntary actions.
Dia mungkin tidak mampu menjalankan pelbagai tindak luar kawal.
- C** He may not able to think logically.
Dia mungkin tidak mampu berfikir secara logik.
- D** He may lose various sensations.
Dia mungkin kehilangan pelbagai deria.

5 Diagram 4 shows the stages in meiosis I.

Rajah 4 menunjukkan peringkat-peringkat dalam meiosis I.

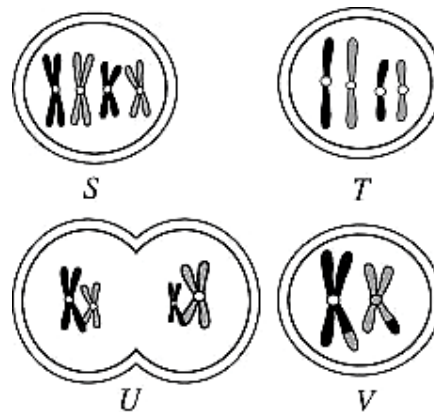


Diagram 4 / Rajah 4

Which of the following shows the correct sequence in the meiosis I?

Antara yang berikut, manakah menunjukkan urutan yang betul dalam meiosis I?

- A** S, T, U, V
- B** T, S, U, V
- C** V, U, T, S
- D** V, U, S, T

6 Diagram 5 shows the karyotype of a person.

Rajah 5 menunjukkan kariotip bagi seseorang.

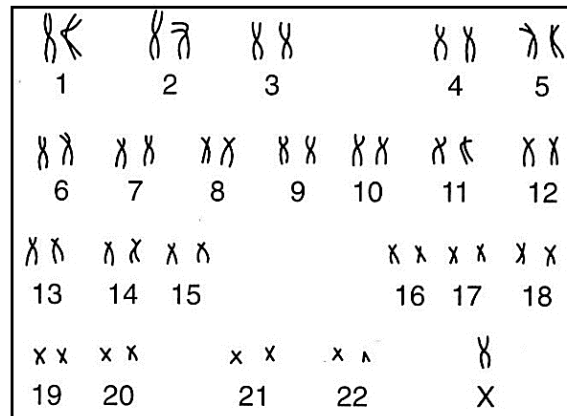


Diagram 5 / Rajah 5

What is the name of this type of genetic disorder?

Apakah nama bagi jenis kecacatan genetik itu?

- A Haemophilia
Hemofilia
- B Down's syndrome
Sindrom Down
- C Turner's syndrome
Sindrom Turner
- D Klinefelter's syndrome
Sindrom Klinefelter

7. Diagram 6 shows the cross-breeding between a red flower plant with a white flower plant.

Rajah 6 menunjukkan pembiakbakaan antara tumbuhan bunga merah dengan tumbuhan bunga putih.

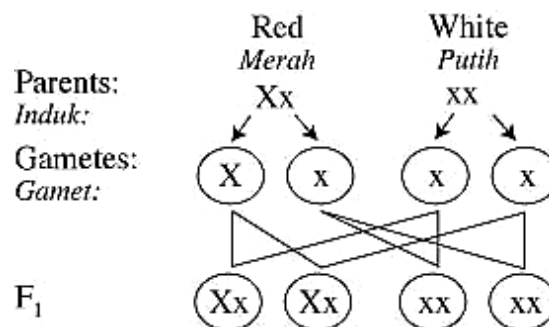


Diagram 6 / Rajah 6

What is the phenotype ratio of the red flower plant to the white flower plants in the offspring?

Berapakah nisbah fenotip oleh tumbuhan bunga merah kepada tumbuhan bunga putih dalam anak pokok?

- A** 2 red : 1 white
2 merah : 1 putih
- B** 1 red : 1 white
1 merah : 1 putih
- C** 1 red : 2 white
1 merah : 2 putih
- D** 0 red : 4 white
0 merah : 4 putih

8. Table 1 shows the elements W, X, Y and Z with their respective number of protons, number of neutrons and nucleon number.

Jadual 1 menunjukkan unsur-unsur W, X, Y dan Z dengan bilangan proton, bilangan neutron dan nombor nukleon masing-masing.

Element <i>Unsur</i>	Number of proton <i>Bilangan proton</i>	Number of neutrons <i>Bilangan neutron</i>	Number of nucleon <i>Bilangan nukleon</i>
W	5	6	11
X	6	6	12
Y	6	7	13
Z	7	7	14

Table 1/ *Jadual 1*

Which of the following is a pair of isotopes?

Antara yang berikut, yang manakah pasangan isotop?

- A** W dan X
W and X
- B** X dan Y
X and Y
- C** Y dan Z
Y and Z
- D** W dan Z
W and Z

9. What is the process used to produce salt crystals from a salt solution?

Apakah proses yang digunakan untuk menghasilkan hablur garam daripada larutan garam?

- A** Boiling
Pendidihan
- B** Crystallation
Penghabluran
- C** Condensation
Kondensasi
- D** Fractional distillation
Penyulingan berperingkat

10. Which substance is made of ion particles?

Antara bahan berikut, yang manakah terbina daripada zarah-zarah ion?

- | | | | |
|---|---------------------|---|----------------------|
| A | Iron
<i>Besi</i> | C | Sugar
<i>Gula</i> |
| B | Water
<i>Air</i> | D | Salt
<i>Garam</i> |

11. Diagram 7 shows a beaker containing some ice.

Rajah 7 menunjukkan suatu bikar berisi ais.

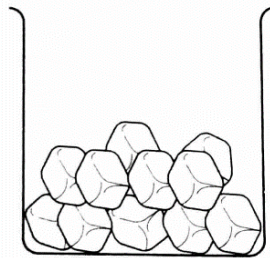


Diagram 7/ *Rajah 7*

What will happen when salt is added to the ice?

Apakah yang akan berlaku apabila garam ditambah kepada ais?

- | | |
|---|--|
| A | The temperature rises above 100° C
<i>Suhu meningkat melebihi 100° C</i> |
| B | The temperature drops to under 0° C
<i>Suhu menurun kepada kurang 0° C</i> |
| C | The temperature remains at 0° C
<i>Suhu kekal pada 0°C</i> |
| D | The temperature drops, then rises back to 0° C
<i>Suhu menurun kemudian meningkat kembali kepada 0° C</i> |

12. Which of the following is a physical change?

Antara yang berikut, yang manakah perubahan fizik?

- | | | | |
|---|--|---|--|
| A | Respiration
<i>Respirasi</i> | C | Burning of paper
<i>Pembakaran kertas</i> |
| B | Melting of ice
<i>Peleburan ais</i> | D | Digestion of food
<i>Pencernaan makanan</i> |

13. What are the advantages of lead-acid accumulator?

Apakah kelebihan akumulator asid-plumbum?

- A Can be used forever
Boleh digunakan selama-lamanya
- B Supplies high voltage
Membekalkan voltan tinggi
- C Not rechargeable
Tidak boleh dicas semula
- D No need to add distilled water
Tidak perlu tambah air suling

14. Table 2 shows the reactivity of metals V, W and X with acid and water.

Jadual 2 menunjukkan kereaktifan logam V, W dan X dengan asid dan air.

Metal <i>Logam</i>	Reaction with acid <i>Tindak balas dengan asid</i>	Reaction with water <i>Tindak balas dengan air</i>
V	Some <i>Sedikit</i>	Yes <i>Ya</i>
W	No <i>Tiada</i>	No <i>Tiada</i>
X	Yes <i>Ya</i>	Yes <i>Ya</i>

Table 2/ *Jadual 2*

Arrange the metals according to their reactivity in descending order.

Susun logam-logam tersebut mengikut kereaktifan menurun.

- A X, V, W
- B V, X, W
- C W, V, X
- D X, W, V

15. If you have an old rusty spoon, what should you do to refurbish it?

Sekiranya anda mempunyai sebatang sudu yang lama dan berkarat, bagaimanakah anda dapat memperbaharuiinya semula?

- A Through extraction method
Melalui kaedah pengekstrakan
- B By using electroplating
Dengan menggunakan kaedah penyaduran
- C By using purification method
Dengan menggunakan kaedah penulenan
- D No specific method can be used
Tiada kaedah spesifik yang boleh digunakan

16. Why is beta radiation more widely used in industry than alpha and gamma radiation?

Mengapakah sinaran beta lebih banyak digunakan dalam industri berbanding dengan sinaran alfa dan sinaran gama?

- A Beta radiation can penetrate very deeply into objects
Sinaran beta boleh menembus jauh ke dalam objek
- B Beta radiation has higher penetration power than alpha radiation but not as dangerous as gamma rays.
Sinaran beta mempunyai kuasa penembusan yang lebih tinggi daripada sinaran alfa tetapi tidak sebahaya sinaran gama.
- C Beta radiation is negatively charged.
Sinaran beta bercas negatif.
- D Beta radiation has a very high velocity.
Sinaran beta mempunyai halaju yang sangat tinggi

17. Which material is suitable to be made into containers for radioactive substances?

Bahan yang manakah sesuai digunakan untuk membuat bekas simpanan bahan radioaktif?

- | | |
|---------------------------|---------------------------------|
| A Paper
<i>Kertas</i> | C Aluminium
<i>Aluminium</i> |
| B Copper
<i>Kuprum</i> | D Lead
<i>Plumbum</i> |

18. Diagram 8 shows the formation of an image by using a concave lens.

Rajah 8 menunjukkan pembentukan imej dengan menggunakan kanta cekung.

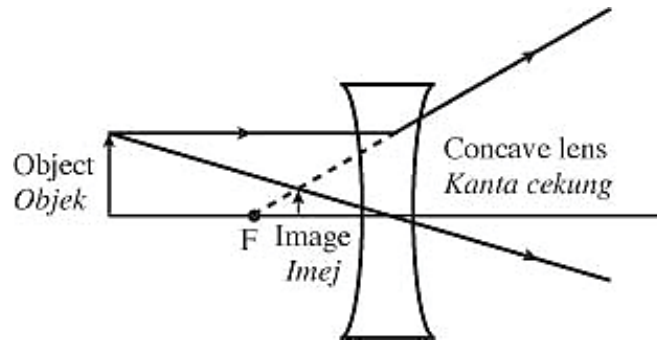


Diagram 8/ *Rajah 8*

How is the image formed if the object is moved closer to the lens?

Bagaimanakah dengan imej yang terbentuk jika objek dipindah dekat kepada kanta?

- A The image is real and smaller than previous image.
Imej adalah nyata dan lebih kecil daripada imej dahulu.
- B The image is virtual and smaller than previous image.
Imej adalah maya dan lebih kecil daripada imej dahulu.
- C The image is virtual and bigger than previous image.
Imej adalah maya dan lebih besar daripada imej dahulu.
- D The image is real and same size as the previous image.
Imej adalah nyata dan sama saiz dengan imej dahulu.

19. Diagram 16 shows a plant with yellow flower and green leaf under white light.

Rajah 16 menunjukkan satu tumbuhan dengan bunga kuning dan daun hijau di bawah cahaya putih.

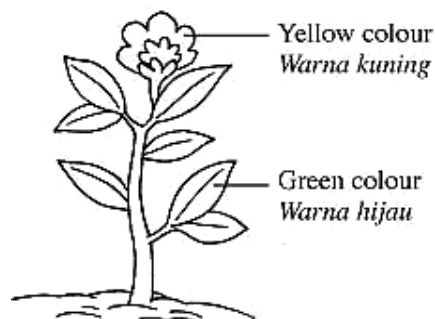


Diagram 9/ *Rajah 9*

What colours of the flower and leaf can be observed under red light?

Apakah warna bunga dan daun yang dapat diperhatikan di bawah cahaya merah?

	Flower <i>Bunga</i>	Leaf <i>Daun</i>
A	Yellow <i>Kuning</i>	White <i>Putih</i>
B	Green <i>Hijau</i>	Red <i>Merah</i>
C	Black <i>Hitam</i>	Green <i>Hijau</i>
D	Red <i>Merah</i>	Black <i>Hitam</i>

20 Diagram 10 shows the process of batik printing.

Rajah 10 menunjukkan proses percetakan batik.

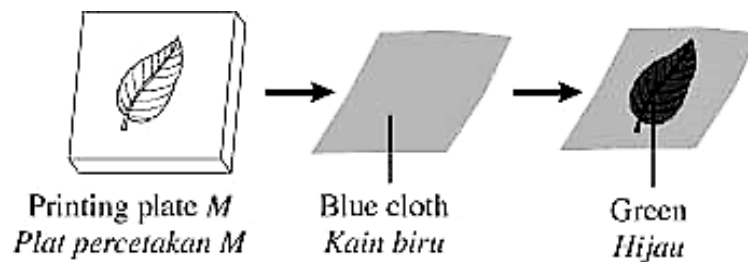


Diagram 10/ *Rajah 10*

What is the original colour of the printing plate *M*?

Apakah warna asal bagi plat percetakan M?

- | | | | |
|---|-----------------------|---|-------------------------|
| A | Red
<i>Merah</i> | C | Cyan
<i>Sian</i> |
| B | Green
<i>Hijau</i> | D | Yellow
<i>Kuning</i> |

21. Which mixtures form bronze?

Campuran yang manakah menghasilkan gangsa?

- | | | | |
|---|---|---|---|
| A | Iron and carbon
<i>Besi dan Karbon</i> | C | Copper and zinc
<i>Kuprum dan zink</i> |
| B | Copper and tin
<i>Kuprum and timah</i> | D | Tin and antimony
<i>Timah dan antimoni</i> |

22. The following information shows the uses of chemical substance X.

Maklumat berikut menunjukkan kegunaan bahan kimia X.

- | |
|--|
| <ul style="list-style-type: none"> To produce fertilizer
<i>Untuk menghasilkan baja</i> To produce nitric acid
<i>Untuk menghasilkan asid nitrik</i> |
|--|

What is X?

Apakah X?

- | | | | |
|---|---------------------------|---|-----------------------------|
| A | Ester
<i>Ester</i> | C | Ammonia
<i>Ammonia</i> |
| B | Alcohol
<i>Alkohol</i> | D | Neoprene
<i>Neoprena</i> |

23. Diagram 11 shows the production of compound X in an industry.

Rajah 11 menunjukkan proses penghasilan sebatian X dalam industry.

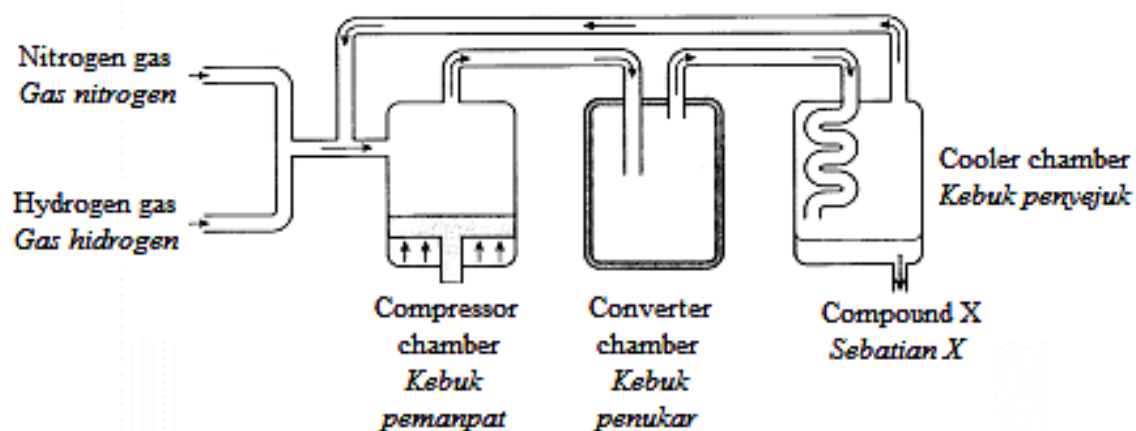


Diagram 11/ *Rajah 11*

What is compound X?

Apakah sebatian X?

- | | | | |
|---|---------------------------|---|--|
| A | Nitrate
<i>Nitrat</i> | C | Nitric acid
<i>Asid Nitrik</i> |
| B | Ammonia
<i>Ammonia</i> | D | Sulphuric acid
<i>Asid sulfurik</i> |

24. Diagram 12 shows a type of microorganisms.

Rajah 12 menunjukkan sejenis mikroorganisma.

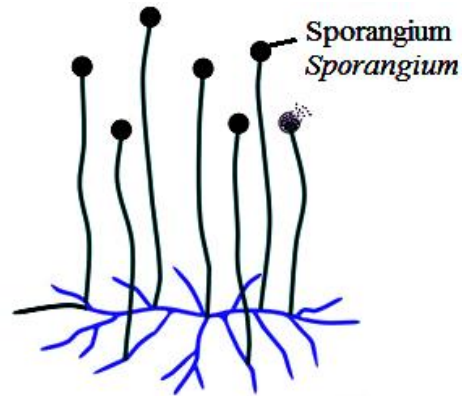


Diagram 12 / Rajah 12

What is the microorganism?

Apakah mikroorganisma tersebut?

A Yeast

Yis

B Mucor

Mukor

C Euglena

Euglena

D Paramecium

Paramesium

25. Diagram 13 shows two types of food.

Rajah 13 menunjukkan dua jenis makanan.



Diagram 13 / Rajah 13

Which of the microorganisms is used to produce the food?

Antara mikroorganisma berikut yang manakah digunakan untuk menghasilkan makanan itu?

- | | | | |
|---|----------------------|---|-----------------------------|
| A | Yeast
<i>Yis</i> | C | Bacteria
<i>Bakteria</i> |
| B | Algae
<i>Alga</i> | D | Protozoa
<i>Protozoa</i> |

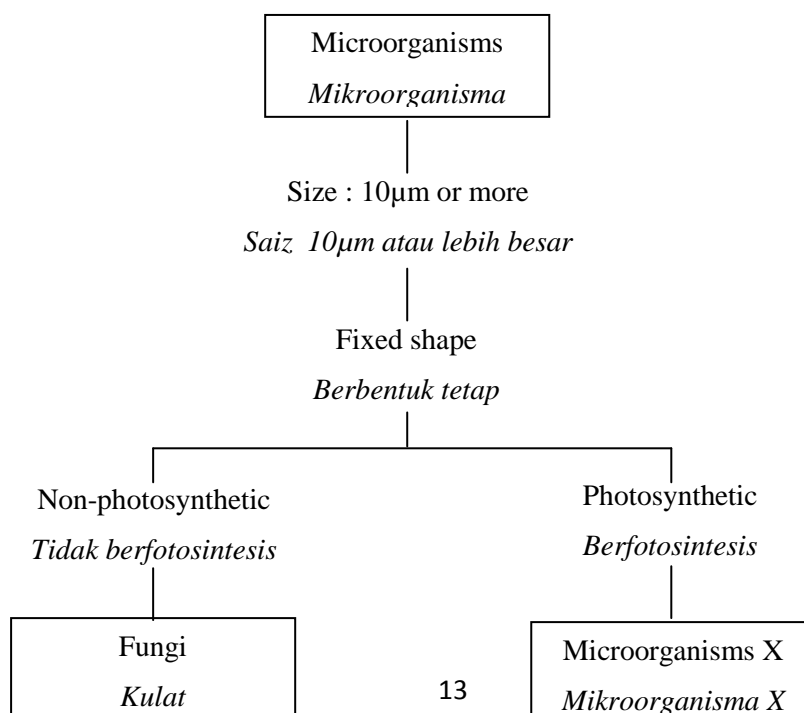
26. An individual can acquire passive artificial immunity after

Seseorang individu boleh mendapat keimunan pasif buatan selepas

- | | |
|---|---|
| A | Drinking mother's milk
<i>Menyusu susu ibunya</i> |
| B | Being injected with a vaccine
<i>Disuntik dengan vaksin</i> |
| C | Recovering from an illness
<i>Sembuh daripada penyakit</i> |
| D | Being injected with antiserum
<i>Disuntik dengan antiserum</i> |

27. The following information shows the classification of microorganisms.

Maklumat berikut menunjukkan pengelasan mikroorganisma.



What is microorganism X?

Apakah mikroorganisma X?

- | | | | |
|---|-----------------------|---|-----------------------------|
| A | Algae
<i>Alga</i> | C | Bacteria
<i>Bakteria</i> |
| B | Virus
<i>Virus</i> | D | Protozoa
<i>Protozoa</i> |

28. What is a balanced diet?

Apakah diet seimbang?

- A The food that contains correct proportions of all classes of food
Makanan yang mengandungi semua kelas makanan dengan perkadaran yang betul
- B The food that can help an individual to resist all kinds of diseases
Makanan yang dapat membantu individu untuk melawan semua jenis penyakit
- C The food that can help an individual to grow and stay healthy
Makanan yang dapat membantu individu untuk membesar dan kekal sihat
- D The food that contains a lot of fibers
Makanan yang mengandungi serat yang banyak

29. Diagram 14 shows the change in the artery of a man.

Rajah 14 menunjukkan perubahan pada arteri seorang lelaki.

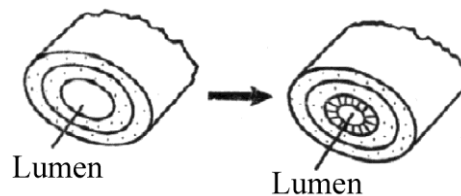


Diagram 14 / *Rajah 14*

What class of food led to this disease?

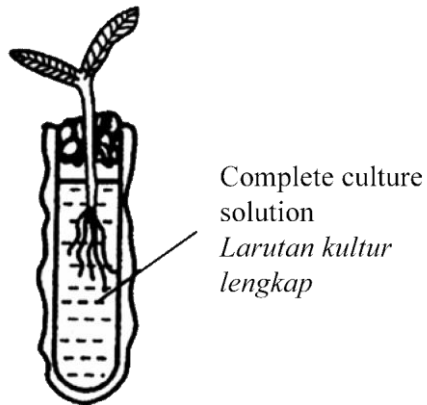
Apakah kelas makanan yang membawa kepada penyakit ini?

- | | | | |
|---|------------------------------------|---|---------------------------|
| A | Carbohydrate
<i>Karbohidrat</i> | C | Protein
<i>Protein</i> |
| B | Minerals
<i>Mineral</i> | D | Fat
<i>Lemak</i> |

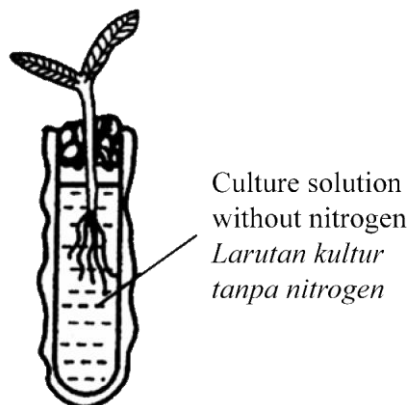
30. Which of the following apparatus caused the growth of a seedling to stunt and its leaves to turn yellowish with brownish spots?

Antara radas yang berikut, yang manakah menyebabkan pertumbuhan anak benih terbantut dan daunnya bertukar kekuningan dengan tompok-tompok perang?

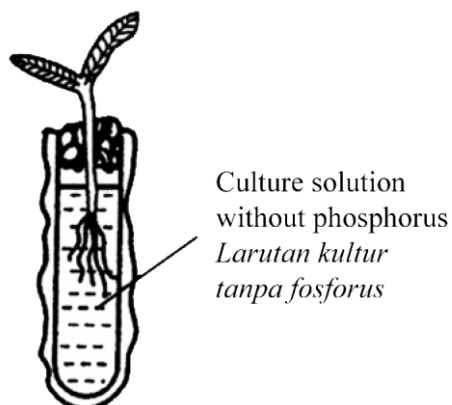
A



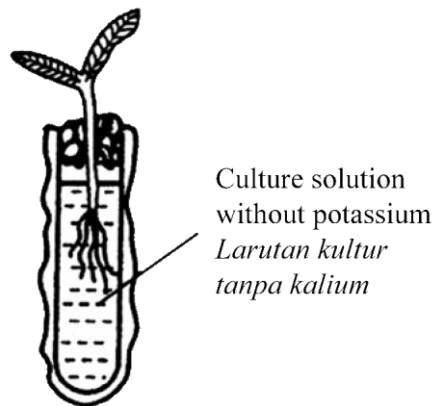
B



C



D



31. What will happen if the forest is being cut down without any control?

Apakah yang akan berlaku jika hutan ditebang tanpa sebarang kawalan?

I Flood

Banjir

II Drought

Kemarau

III Acid rain

Hujan asid

IV Eutrophication

Eutrofikasi

A I and II

I dan II

C I and IV

I dan IV

B II and III

II dan III

D III and IV

III dan IV

32. Diagram shows a food chain.

Rajah menunjukkan rantai makanan.

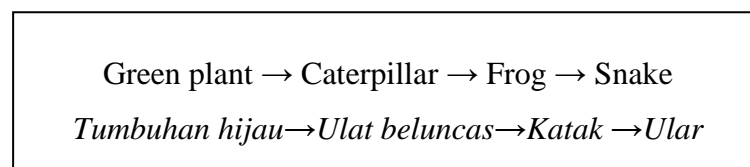


Diagram 15 / *Rajah 15*

What will happen to the grass and frog population if all grasshoppers are dead?

Apakah yang akan terjadi pada populasi rumput dan katak jika kesemua belalang mati?

	Grass <i>Rumput</i>	Frog <i>Katak</i>
A	Increase <i>Bertambah</i>	Decrease <i>Berkurang</i>
B	Decrease <i>Berkurang</i>	Increase <i>Bertambah</i>
C	Increase <i>Bertambah</i>	Increase <i>Bertambah</i>
D	Decrease <i>Berkurang</i>	Decrease <i>Berkurang</i>

33. What is the effect of excessive fertilizer in a river?

Apakah kesan baja yang berlebihan di dalam sungai?

A Alga grows rapidly

Alga tumbuh dengan pesat

B Habitat for more organisms

Habitat untuk lebih banyak organisma

C The population of fish increases

Populasi ikan meningkat

D Aquatic plants in the river get carbon dioxide from alga and grow healthily

Tumbuhan akuatik di dalam sungai menerima karbon dioksida daripada alga dan membesar dengan sihat

34. What are the effects of excessive intake of saturated fats?

Apakah kesan pengambilan lemak tepu yang berlebihan?

A Blood glucose level to rise

Peningkatan aras glukosa dalam darah

B Blood cholesterol level to rise

Peningkatan aras kolesterol dalam darah

C The lumen size of arteries increase

Saiz lumen arteri akan bertambah

D Decrease blood pressure

Menurunkan tekanan darah

35. Which of the following is a characteristic of ethanol?

Antara berikut yang manakah merupakan ciri etanol?

- A Coloured
Berwarna
- B Easily evaporated
Mudah meruap
- C Non-flammable
Tidak terbakar
- D Immiscible in water
Tidak larut campur dalam air

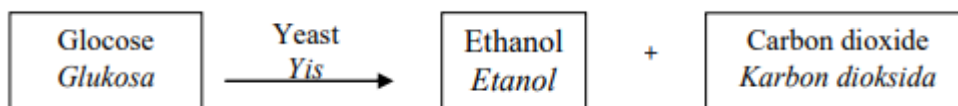
36. Which of the following is an organic compound?

Antara yang berikut, yang manakah sebatian tak organik?

- | | |
|--|-----------------------------|
| A Sugar
<i>Gula</i> | C Coal
<i>Arang batu</i> |
| B Palm oil
<i>Minyak kelapa sawit</i> | D Marble
<i>Marmar</i> |

37. What process is represented by the word equation below?

Apakah proses yang diwakili oleh persamaan perkataan di bawah?



- | | |
|---------------------------------------|--|
| A Hydrolysis
<i>Hidrolisis</i> | C Esterification
<i>Pengesteran</i> |
| B Dehydration
<i>Pendehidratan</i> | D Fermentation
<i>Penapaian</i> |

38. Diagram 16 shows an experiment carried out on natural rubber.

Rajah 16 menunjukkan eksperimen yang dijalankan ke atas getah asli.

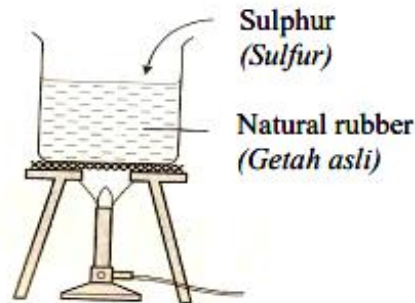


Diagram 16 / Rajah 16

What is the function of sulphur in this experiment?

Apakah fungsi sulfur dalam eksperimen ini?

- A To coagulate latex
Untuk menggumpalkan lateks
- B To prevent the coagulation of latex
Untuk menghalang penggumpalan lateks
- C To increase the hardness of natural rubber
Untuk meningkatkan kekerasan getah asli
- D To make natural rubber less resistant to chemicals
Untuk menjadikan getah asli kurang tahan terhadap bahan kimia

39. Pak Ali wants to export prawns to Japan. What is the most suitable method to maintain the freshness of the prawns?

Pak Ali in gin mengeksport udang ke Jepun. Apakah kaedah untuk mengekalkan kesegaran udang itu?

- | | |
|---|---|
| A Canning
<i>Pengetinan</i> | C Deep freezing
<i>Penyejukbekuan</i> |
| B Pasteurization
<i>Pempasteuran</i> | D Vacuum packaging
<i>Pembungkusan vakum</i> |

40. Imbalance between the increase of people with the development of food production will cause the people to suffer from

Ketidakseimbangan antara pertambahan penduduk dengan kemajuan teknologi pengeluaran makanan akan menyebabkan manusia mengalami

- | | | | |
|---|--|---|--|
| A | anorexia nervosa
<i>anoreksia nervosa</i> | C | malnutrition
<i>malnutrisi</i> |
| B | hepatitis
<i>hepatitis</i> | D | food poisoning
<i>keracunan makanan</i> |

41. Which of the following can increase the quality and quantity of food production?

Antara yang berikut, yang manakah boleh meningkatkan kualiti dan kuantiti penghasilan makanan?

- | | | | |
|-----|---|----|---|
| I | Use of modern technology
<i>Penggunaan teknologi moden</i> | II | Use of low quality breeds
<i>Penggunaan baka yang rendah kualiti</i> |
| III | Giving financial aid to the farmer
<i>Memberi bantuan kewangan kepada petani</i> | | |
| A | I only
<i>I sahaja</i> | C | II and III only
<i>II dan III sahaja</i> |
| B | I and II only
<i>I dan II sahaja</i> | D | I,II and III
<i>I,II dan III</i> |

42. Diagram 17 shows two examples of processed food.

Rajah 17 menunjukkan dua contoh makanan yang diproses.



Diagram 17 / *Rajah 17*

What is the method used in processing these food?

Apakah kaedah yang digunakan dalam memproses makanan tersebut?

- | | | | |
|---|----------------------------------|---|---|
| A | Cooling
<i>Pendinginan</i> | C | Freeze-drying
<i>Penyejukbekuan kering</i> |
| B | Irradiation
<i>Penyinaran</i> | D | Vacuum-packing
<i>Pembungkusan vakum</i> |

43. Ali had a stomach ache after eating the food in Diagram 18. What information on the label that he over-looked?

Ali mengalami sakit perut setelah memakan makanan di dalam Rajah 18. Apakah maklumat yang tidak diambil berat oleh Ahmad ?



Diagram 18 / Rajah 18

- | | | | |
|---|-----------------------------------|---|-------------------------------------|
| A | Ingredients
<i>Ramuan</i> | C | Expiry date
<i>Tarikh luput</i> |
| B | Net weight
<i>Berat bersih</i> | D | Name of food
<i>Nama makanan</i> |

44. Diagram 19 shows one state of four stroke petrol engines.

Rajah 19 menunjukkan satu keadaan bagi enjin petrol empat lejang.

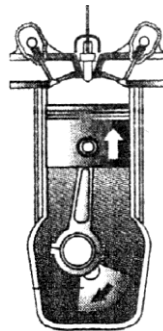


Diagram 19 / Rajah 19

What is this stroke?

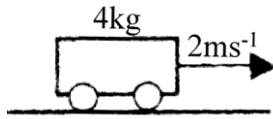
Apakah lejang ini?

- | | | | |
|---|---------------------------------------|---|--|
| A | Power stroke
<i>Lejang kuasa</i> | C | Induction stroke
<i>Lejang aruhan</i> |
| B | Exhaust stroke
<i>Lejang ekzos</i> | D | Compression stroke
<i>Lejang mampatan</i> |

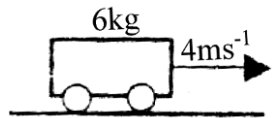
45. Which of the following trolleys has the higher momentum?

Antara trolri berikut, yang manakah mempunyai momentum yang paling tinggi?

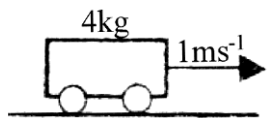
A



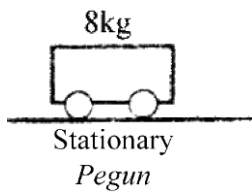
B



C



D



46. Diagram 20 shows the shape of the aerofoil of an aeroplane wing.

Rajah 20 menunjukkan bentuk aerofoil bagi satu sayap kapal terbang.

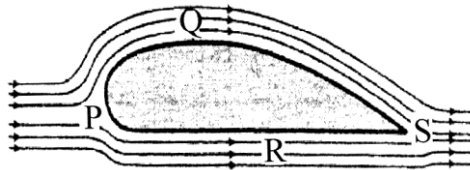


Diagram 20 / Rajah 20

Which part of the aerofoil has the lowest air speed and higher air pressure?

Bahagian aerofoil yang manakah mempunyai kelajuan udara yang paling rendah dan tekanan udara yang paling tinggi?

	Lowest speed <i>Kelajuan paling rendah</i>	Higher pressure <i>Tekanan udara paling tinggi</i>
A	P	R
B	Q	Q
C	R	R
D	S	Q

47. Which of the following are made of natural rubber?

Antara yang berikut, yang manakah dibuat daripada getah asli?

I Aeroplane tyre

Tayar kapal terbang

II Lining in tanks

Lapik dalam tangka

III Inner tyre tube

Bahagian dalam tiub tayar

IV Rubber glove

Sarung tangan getah

A I and II

I dan II

C I and IV

I dan IV

B I and II

I dan II

D III and IV

III dan IV

48. A manufacturer wants to manufacture a new set of crockery which has the following properties:

Seorang pengilang mahu membuat satu set pinggan mangkuk baru yang mempunyai sifat-sifat di bawah:

- | |
|---|
| <ul style="list-style-type: none"> • Hard
<i>Keras</i> • Stand heat, oil and acid
<i>Tahan haba, minyak dan asid</i> • Not easily discoloured
<i>Tidak mudah dinyahwarna</i> |
|---|

Which of the following plastic is suitable for the crockery above?

Antara plastik berikut, yang manakah sesuai untuk pinggan mangkuk di atas?

- | | | | |
|---|-----------------------------------|---|-----------------------------|
| A | Polypropene
<i>Polipropena</i> | C | Melamine
<i>Melamina</i> |
| B | Polythene
<i>Politena</i> | D | Bakelite
<i>Bakelit</i> |

49. Diagram 21 shows the radio waves.

Rajah 21 menunjukkan gelombang-gelombang radio.

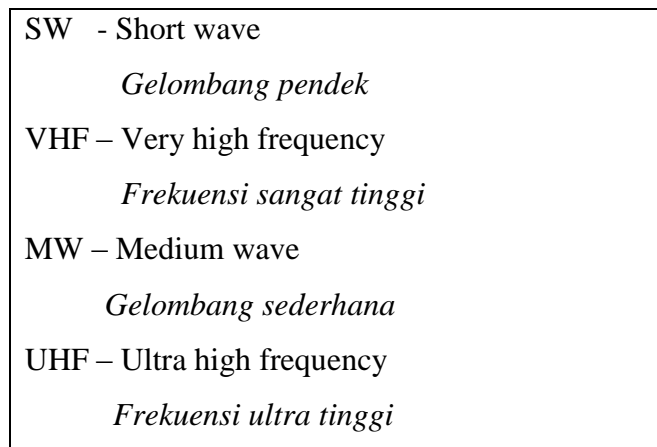


Diagram 21 / Rajah 21

Arrange the radio wave in ascending order according to the wavelength.

Susun gelombang radio dalam tertib menurun jarak gelombang.

- A SW, VHF, MW, UHF
 B SW, MW, VHF, UHF
 C UHF, VHF, SW, MW
 D VHF, UHF, MW, SW

50. Diagram 22 shows a displacement distance graph of a wave.

Rajah 22 menunjukkan graf jarak sesaran bagi suatu gelombang.

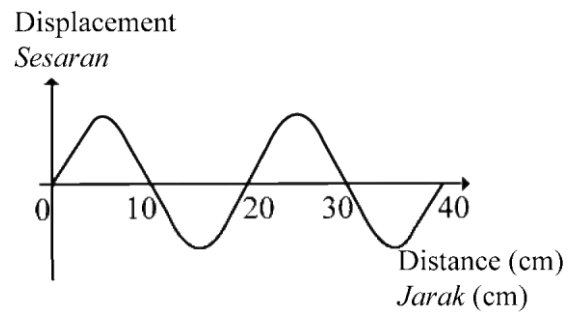


Diagram 22 / Rajah 22

If the wave frequency of the wave is 20 s^{-1} , calculate the wave velocity.

Jika frekuensi gelombang ialah 20 s^{-1} , hitung halaju gelombang.

- | | | | |
|---|-----------------------|---|-------------------------|
| A | 1 cm s^{-1} | C | 200 cm s^{-1} |
| B | 2 cm s^{-1} | D | 400 cm s^{-1} |

END OF QUESTION PAPER

KERTAS SOALAN TAMAT