



Perak EXcellent

Nama :

No.Kad Pengenalan :

Angka Giliran :

MOCK TEST 2

1511/2

SAINS

Kertas 1

Julai

1 Jam 15 Minit

JANGAN BUKA KERTAS SOALANINI SEHINGGA DIBERITAHU

1. *Kertas soalan ini mengandungi 50 soalan*
2. *Jawab semua soalan.*
3. *Jawab dengan menghitamkan ruangan yang betul pada kertas jawapan.*
4. *Bagi setiap soalan hitamkan satu ruangan sahaja.*
5. *Sekiranya anda hendak menukar jawapan, padamkan tanda yang telah dibuat. Kemudian hitamkan jawapan yang baru.*
6. *Rajah yang mengiringi soalan tidak dilukiskan mengikut skala kecuali dinyatakan*
7. *Anda dibenarkan menggunakan kalkulator saintifik yang tidak boleh diprogramkan*

Kertas soalan ini mengandungi 18 halaman bercetak.

- 1 What is meant by body coordination?
Apakah maksud koordinasi badan?
- A To coordinate body's growth
Menyelaras pertumbuhan badan
- B To coordinate position and balance of the body
Menyelaras kedudukan dan keseimbangan badan
- C To coordinate body's responses towards any stimuli
Menyelaras gerak balas badan terhadap sebarang rangsangan
- D To coordinate secretion of hormone by endocrine gland
Menyelaras perembesan hormon oleh kelenjar endokrin

- 2 Diagram 1 shows a type of neurone.
Rajah 1 menunjukkan sejenis neuron.

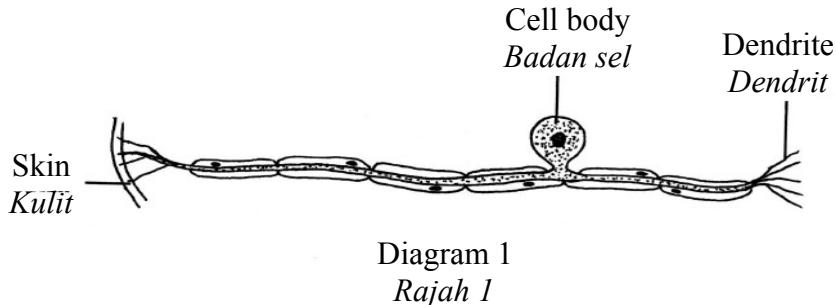


Diagram 1
Rajah 1

The neurone carries an impulse from
Neuron itu membawa impuls dari

- A The effector to the central nervous system
Efektor ke sistem saraf pusat
- B The central nervous system to the effector
Sistem saraf pusat ke efektor
- C The receptor to the central nervous system
Reseptor ke sistem saraf pusat
- D The central nervous system to the receptor
Sistem saraf pusat ke reseptor

- 3 Diagram 2 shows an impulse pathway.

Rajah 2 menunjukkan satu lintasan impuls.

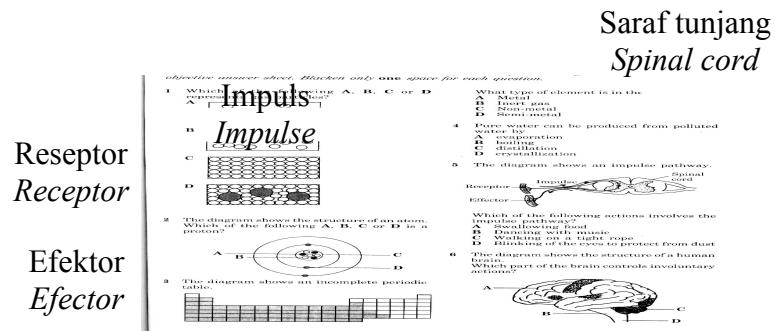


Diagram 2
Rajah 2

Which of the following actions involves the impulse pathway?

Antara tindakan berikut, yang manakah melibatkan lintasan impuls itu?

- A Swallowing food
Menelan makanan
- B Dancing with music
Menari dengan irungan muzik
- C Walking on a tight rope
Berjalan di atas tali yang diregangkan
- D Blinking of the eyes to protect from dust
Mengedip mata untuk mencegah kemasukan habuk
- 4 A girl keeps on screaming while watching a horror movie. Which gland is related to her action?
Seorang remaja perempuan menjerit-jerit sewaktu menonton tayangan seram. Kelenjar manakah yang berkaitan dengan aksi beliau?
- | | |
|-----------------------------|--------------------------------|
| A Ovary
<i>Ovari</i> | B Tiroid
<i>Tiroid</i> |
| C Adrenal
<i>Adrenal</i> | D Pancrease
<i>Pankreas</i> |
- 5 The following statement is about road safety campaign.
Pernyataan berikut adalah berkaitan dengan kempen keselamatan jalan raya.

“Don’t drink and drive”
“Jangan memandu dalam keadaan mabuk”

What is the relationship between the statement with body coordination?
Apakah kaitan antara pernyataan itu dengan koordinasi badan?

- A Most neurons are destroyed
Kebanyakan neuron dimusnahkan

B Rate of heart beat decreases
Kadar denyutan jantung menurun

C Brain activities become rapid
Aktiviti otak menjadi cepat

D Impulse transmission is slowed down
Penghantaran impuls menjadi lambat

6 Which statement is correct about meiosis?
Pernyataan manakah yang betul mengenai proses meiosis?

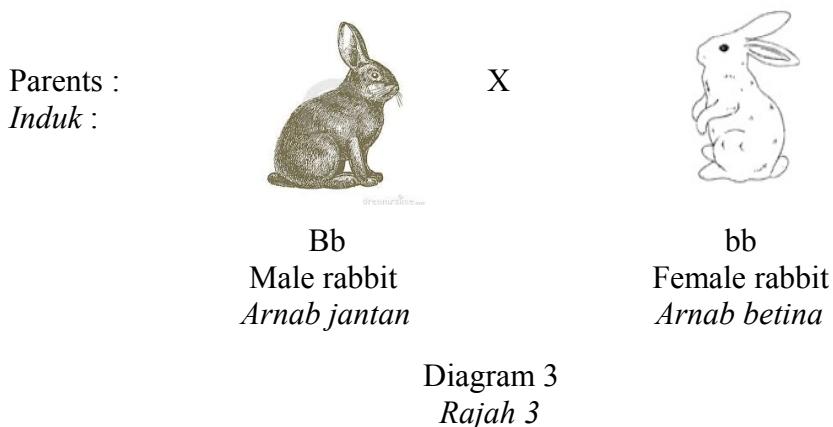
A It happens in a somatic cell
Berlaku pada sel soma

B The nucleus divides twice
Nukleus membahagi dua kali

C It maintains the number of chromosomes
Bilangan kromosom dikekalkan

D Each parent cell produces two daughter cells
Setiap sel induk menghasilkan dua sel anak

7 Diagram 3 shows the inheritance of hair colour in rabbits.
Rajah 3 menunjukkan perwarisan warna bulu bagi arnab.



Dominant gene produces black fur while recessive gene produces white fur.
Gen dominan menghasilkan bulu hitam manakala gen resesif menghasilkan bulu putih.
What is the percentage of having white fur offspring?
Berapakah peratus kemungkinan mendapat anak bulu putih?

- 8 A human ovum contains
Sperma manusia mengandungi

A 22 + X chromosomes
22 + X kromosom

B 22 + Y chromosomes
22 + Y kromosom

C 44 + X chromosomes
44 + X kromosom

D 44 + Y chromosomes
44 + Y kromosom

9 Which of the following is an example of a discontinuous variation?
Antara yang berikut, yang manakah contoh variasi tak selanjar?

A Height
Ketinggian

B Body weight
Berat badan

C Thumbprint
Cap ibu jari

D Skin colour
Warna kulit

10 Diagram 4 shows a change in a state of matter.
Rajah 4 menunjukkan satu perubahan keadaan jirim.

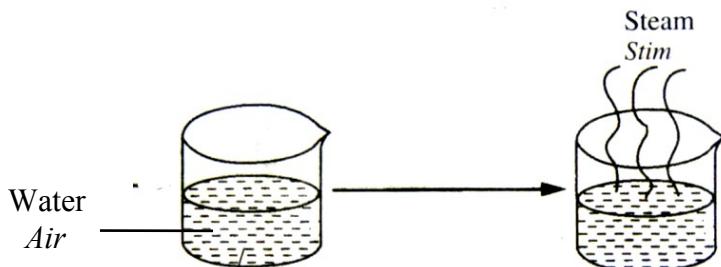


Diagram 4
Rajah 4

Which of the following occur during this change?
Antara berikut yang manakah berlaku semasa perubahan ini?

- A Force of attraction between water molecules increases
Daya tarikan antara molekul air bertambah
 - B Kinetic energy of water molecule increases
Tenaga kinetik molekul air bertambah
 - C Speed of water molecules decreases
Kelajuan molekul air berkurangan
 - D Size of water molecule increases
Saiz molekul air bertambah

11 Diagram 5 shows two atoms, M and N.

Rajah 5 menunjukkan dua atom, iaitu M dan N.

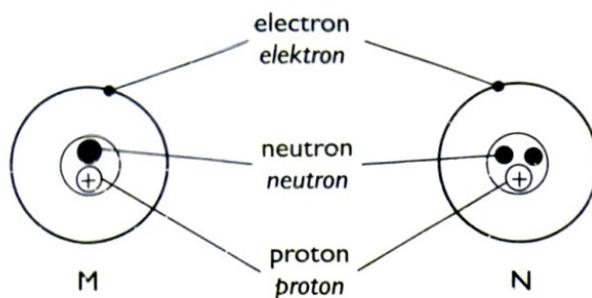


Diagram 5

Rajah 5

What is the difference between atom M and atom N

Apakah perbezaan antara atom M dengan atom N?

- A Number of negatively charged particles
Bilangan zarah-zarah yang bercas negatif
- B Number of positively charged particles
Bilangan zarah-zarah yang bercas positif
- C Proton number
Nombor proton
- D Nucleon number
Nombor nukleon

12 Diagram 6 shows an incomplete periodic table.

Rajah 6 menunjukkan jadual berkala yang tidak lengkap.

The diagram shows a partial periodic table grid. The first two columns are empty. The third column has one shaded cell. The fourth column has two shaded cells. The fifth column has three shaded cells. The sixth column has four shaded cells. The seventh column has five shaded cells. The eighth column is empty. The ninth column has one shaded cell. The tenth column is empty.

Diagram 6

Rajah 6

The elements in the shaded area are...

Unsur dalam kawasan berlorek adalah....

- | | |
|--------------------------------------|------------------------------------|
| A Metals
<i>Logam</i> | B Non-metals
<i>Bukan logam</i> |
| C Semi-metals
<i>Separa logam</i> | D Noble gases
<i>Gas lengai</i> |
- 13 Cables for holding very heavy loads are made of metals. What are the characteristics of the metal used to make this material.
Kabel untuk menampung beban yang sangat berat diperbuat daripada logam. Apakah ciri logam yang digunakan untuk membuat bahan ini?
- A Have high tensile strength and strong
Mempunyai kekuatan regangan yang tinggi dan kuat
 - B Have good conductor of heat and can conduct electricity
Mempunyai sifat konduktor haba yang baik dan boleh mengkonduksi elektrik
 - C Malleable and ductile
Boleh ditempa dan mulur
 - D Shiny and can be easily seen
Berkilat dan mudah dilihat

- 14 Table 1 shows the initial temperature of the reactants and final temperature of the products of reactions P, Q, R and S.
Jadual 1 menunjukkan suhu awal bahan tindak balas dan suhu akhir hasil tindak balas P, Q, R dan S.

Reaction <i>Tindak balas</i>	Temperature (°C) <i>Suhu (°C)</i>	
	Initial <i>Awal</i>	Final <i>Akhir</i>
P	28	38
Q	28	28
R	28	20
S	28	30

Table 1
Jadual 1

Which reaction is an exothermic reaction?
Tindak balas yang manakah merupakan tindak balas eksotermik?

- A P and R
P dan R
- B Q and R
Q dan R
- C R and S
R dan S
- D P and S
P dan S

15 Diagram 7 shows a heating of substance X and carbon.

Rajah 7 menunjukkan pemanasan bahan X dan karbon.

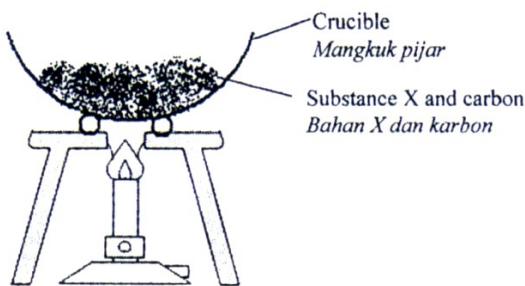


Diagram 7
Rajah 7

The mixture was heated strongly but there was no reaction. What is X?

Campuran tersebut dipanaskan dengan kuat tetapi tiada tindak balas berlaku.

Apakah bahan X?

- A Zinc oxide
Zink oksida

- B Aluminium oxide
Aluminium oksida

- C Lead oxide
Plumbum oksida

- D Iron oxide
Ferum oksida

16 Diagram 8 shows the apparatus set up to electroplate an iron key with silver.

Rajah 8 menunjukkan susunan radas yang digunakan oleh seorang murid untuk menyadur kunci besinya dengan argentum.

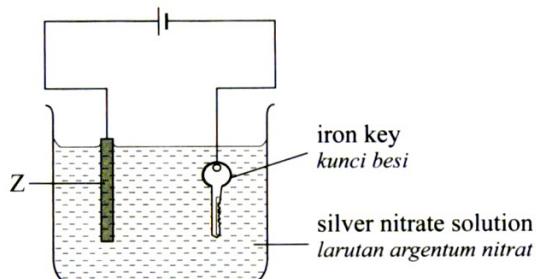


Diagram 8
Rajah 8

What is metal Z?

Apakah logam Z?

- A Silver
Argentum

- B Iron
Ferum

- C Nitrate
Nitrat

- D Copper
Kuprum

17 A night hawker needs a bright light to use for the whole night.

What type of battery is suitable used to light up that lamp?

Seorang peniaga pasar malam memerlukan lampu yang terang sepanjang malam.

Apakah jenis bateri yang sesuai digunakan?

- A Dry cell
Sel kering

- B Lead acid accumulator
Akumulator asid plumbum

- C Mercury cell
Sel merkuri

- D Nickel-cadmium batteries
Bateri nikel-kadmium

18 Radioactive radiation that has negative charge is

Sinaran radioaktif yang bercas negatif adalah

- A Alpha ray
Sinar alfa

- B Beta ray
Sinar beta

- C Gamma ray
Sinar gama

- D X-ray
Sinar X

19 Diagram 9 shows a nuclear fission of uranium-235 bombarded by particle X.

Rajah 9 menunjukkan proses pembelahan nucleus uranium-235 apabila dibedil oleh zarah X.

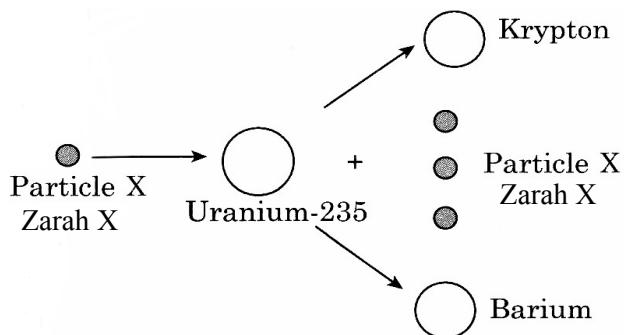


Diagram 9

Rajah 9

What is particle X?

Apakah zarah X?

- A Neutron
Neutron

- B Proton
Proton

- C Nucleon
Nukleon

- D Electron
Elektron

- 20 A group of archeologists found a human skeleton which was believed to be buried thousands of years ago. They want to estimate the age of the skeleton.
Sekumpulan ahli arkeologi menemui rangka manusia yang dipercaya tertimbuk beribu-ribu tahun dahulu. Mereka hendak menganggarkan usia rangka itu.

What is the radioactive material they would use?
Apakah bahan radioaktif yang akan mereka gunakan?

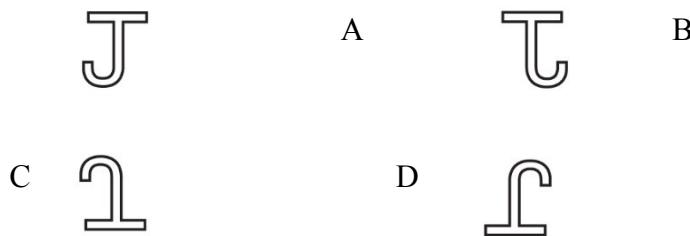
- | | |
|----------------------------------|-------------------------------------|
| A Iodine-131
<i>Iodin-131</i> | B Cobalt-60
<i>Kobalt-60</i> |
| C Carbon-14
<i>Karbon-14</i> | D Uranium-235
<i>Uranium-235</i> |

- 21 Diagram 10 shows a letter placed in front of a plane mirror.
Rajah 10 menunjukkan satu huruf diletakkan di hadapan cermin satah.



Diagram 10
Rajah 10

Which image appears in the plane mirror?
Imej yang manakah kelihatan diatas cermin satah?



- 22 Diagram 11 shows an observer looking at the sky at noon.
Rajah 11 menunjukkan seorang pemerhati memerhati langit pada waktu tengahari.

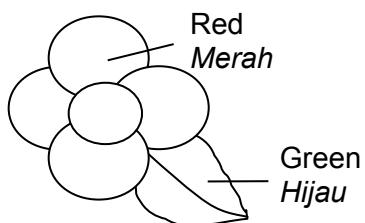
<p>16 The diagram shows a process involved in a green plant.</p> <p>Which of the following substances are produced in the above process?</p> <p><input type="radio"/> A Oxygen <input type="radio"/> B Carbon dioxide <input checked="" type="radio"/> C Water <input type="radio"/> D Iodine-131 <input type="radio"/> E Iodine-131 and Carbon dioxide</p>	<p>17 The diagram shows an object which is placed in front of a plane mirror.</p> <p>Which image appears in the plane mirror?</p> <p><input type="radio"/> A R <input checked="" type="radio"/> B R <input type="radio"/> C R <input type="radio"/> D R</p>	<p>18 The diagram shows the position of an object Q in front of a convex lens. Positions A, B, C and D show the positions of the image formed by the lens.</p> <p>Object Q formed?</p> <p><input type="radio"/> A B <input type="radio"/> B C <input checked="" type="radio"/> C D <input type="radio"/> D D</p>	<p>19 The diagram shows the dispersion of white light by a glass prism.</p> <p>Atmosphere</p> <p>Atmosfera</p> <p>Earth</p> <p>Bumi</p> <p>White light</p> <p>Red light</p> <p>Blue light</p> <p>Green light</p> <p>Violet light</p>	<p>20 Sunlight</p> <p>Cahaya matahari</p> <p>Atmosphere</p> <p>Earth</p> <p>Observer</p> <p>Atmosfera</p> <p>Bumi</p> <p>Observer</p> <p>Sunlight</p> <p>Red light</p> <p>Blue light</p> <p>Green light</p> <p>Violet light</p> <p>Particiles</p> <p>Partikel</p> <p>Observer</p> <p>Atmosphere</p> <p>Earth</p> <p>Observer</p> <p>Sunlight</p> <p>Red light</p> <p>Blue light</p> <p>Green light</p> <p>Violet light</p>	<p>21 The diagram shows overlapping coloured lights.</p> <p>Particle</p> <p>Zarah</p> <p>Blue light</p> <p>Green light</p> <p>Red light</p> <p>The colour of light in the sky is:</p> <p><input type="radio"/> A White <input checked="" type="radio"/> B Red <input type="radio"/> C Green <input type="radio"/> D Blue</p>	<p>22 The diagram shows overlapping coloured lights.</p> <p>Particle</p> <p>Zarah</p> <p>Blue light</p> <p>Green light</p> <p>Red light</p> <p>The colour of light in the sky is:</p> <p><input type="radio"/> A White <input checked="" type="radio"/> B Red <input type="radio"/> C Green <input type="radio"/> D Blue</p>	<p>23 Which of the following processes increase the hardness of a metal?</p> <p><input type="radio"/> A Melting</p> <p><input checked="" type="radio"/> B Annealing</p> <p><input type="radio"/> C Oxidation</p> <p><input type="radio"/> D Carbonylation</p>	<p>24 The source of energy used to produce a nuclear fission reaction is:</p> <p><input type="radio"/> A Ammonium + Hydrogen</p> <p><input type="radio"/> B Potassium + Hydrogen</p> <p><input checked="" type="radio"/> C Ammonium chloride</p> <p><input type="radio"/> D Ammonium carbonate</p>
---	--	---	--	--	---	---	---	--

Diagram 11
Rajah 11

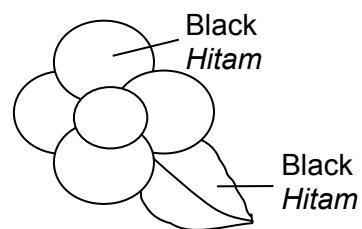
Which colour of the sunlight dispersed the most?
Apakah warna cahaya matahari yang paling banyak diserakkan?

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

- 23 Diagram 12 shows the colour of a flower and leaf under different colour of light
Rajah 12 menunjukkan bunga dan daun di bawah sinaran cahaya yang berbeza



Seen under white light
Dilihat di bawah cahaya putih



Seen under light X
Dilihat di bawah cahaya X

Diagram 12
Rajah 12

What is the colour of light X?
Apakah warna cahaya X ?

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

- 24 Diagram 13 shows an aeroplane.
Rajah 13 menunjukkan sebuah kapal terbang.

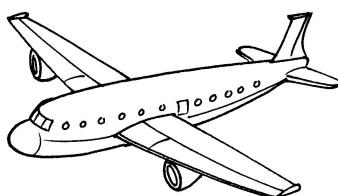


Diagram 13
Rajah 13

What is the suitable substance used to build the body of the aeroplane?
Apakah bahan yang sesuai diguna untuk membina badan kapal terbang?

- | | |
|--|---------------------------------|
| A Copper nickel
<i>Kuprum nikel</i> | B Steel
<i>Keluli</i> |
| C Pewter
<i>Piuter</i> | D Duralumin
<i>Duralumin</i> |

- 25 Diagram 14 shows the set-up of an experiment to study the resistance of different materials to corrosion.
Rajah 14 menunjukkan susunan radas bagi satu eksperimen untuk mengkaji ketahanan bahan yang berbeza terhadap kakisan.

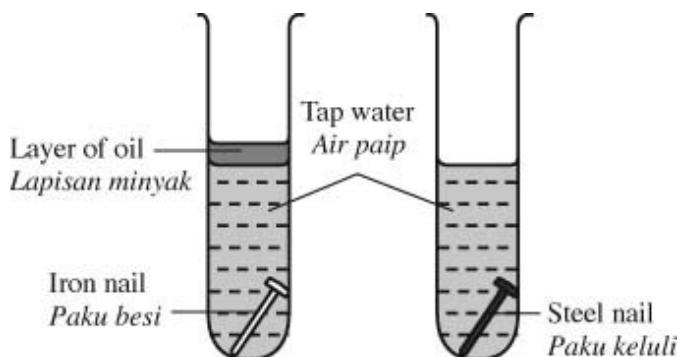


Diagram 14
Rajah 14

What is the observation after 3 days?
Apakah pemerhatian selepas 3 hari?

- A Both the nails in the test tubes rusted.
Kedua-dua paku dalam tabung uji berkarat.
- B Both the nails in the test tubes does not rust.
Kedua-dua paku dalam tabung uji tidak berkarat.
- C The steel nail rust but the iron nail does not rust.
Paku keluli berkarat tetapi paku besi tidak berkarat.
- D The steel nail does not rust but the iron nail rust.
Paku keluli tidak berkarat tetapi paku besi berkarat.

26 Diagram 15 shows the open burning of rubbish.

Rajah 15 menunjukkan pembakaran sampah-sarap secara terbuka.



Diagram 15

Rajah 15

Which of the following is the most likely effect of this activity?

Manakah antara yang berikut, kesan yang mungkin bagi aktiviti ini?

A Formation of acid rain
Pembentukan hujan asid

B Depletion of ozone layer
Penipisan lapisan ozon

C Green house effects
Kesan rumah hijau

D Water pollution
Pencemaran air

27 Diagram 16 shows the relationship between the cultured bacteria and the pH that is affecting it.

Rajah 16 menunjukkan hubungan antara bakteria yang dikulturkan dengan pH yang mempengaruhinya.

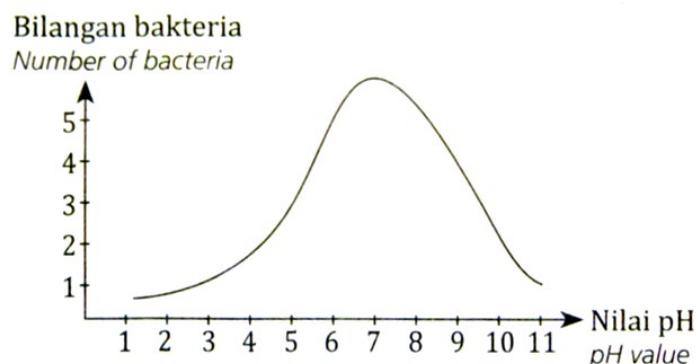


Diagram 16

Rajah 16

What is the conclusion of the result ?

Apakah kesimpulan bagi keputusan tersebut ?

- A Bacteria grow well in low pH
Bakteria bertumbuh dengan baik pada pH rendah
 - B Bacteria grow well in neutral condition
Bakteria bertumbuh dengan baik dalam keadaan neutral
 - C Bacteria grow well in alkaline condition.
Bakteria bertumbuh dengan baik dalam keadaan beralkali
 - D Bacteria grow well in acidic condition
Bakteria bertumbuh dengan baik dalam keadaan berasid
- 28 Diagram 17 shows the alimentary canal of a cow.
Rajah 17 menunjukkan salur alimentary bagi seekor lembu.

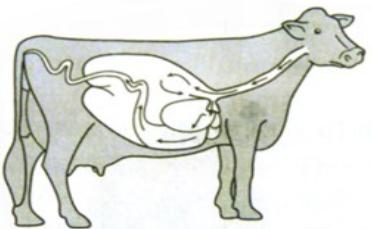


Diagram 17
Rajah 17

Why do some animals need protozoa and bacteria in their alimentary canal ?
Mengapakah sesetengah haiwan memerlukan protozoa dan bakteria di dalam salur alimentarinya?

- A To digest the fats.
Untuk mencernakan lemak
- B To digest the proteins
Untuk mencernakan protein
- C To digest the carbohydrates
Untuk mencernakan karbohidrate
- D To digest the cellulose into simpler carbohydrate
Untuk mencernakan selulosa kepada karbohidrat ringkas.

- 29 The following statement shows a body immunity.

Pernyataan berikut menunjukkan keimunan badan.

Ali is given a vaccine after he accidentally stepped on the rusty nail.

Ali diberikan vaksin selepas dia terpijak paku berkarat

What are the disease and the type of its immunity ?

Apakah penyakit itu dan jenis keimunannya.

	Disease <i>Penyakit</i>	Immunity <i>keimunan</i>
A	Typhus <i>Tifus</i>	Natural active <i>Aktif semulajadi</i>
B	Rabies <i>Anjing gila</i>	Artificial active <i>Aktif buatan</i>
C	Tetanus <i>Kancing gigi</i>	Artificial passive <i>Pasif buatan</i>
D	Tetanus <i>Kancing gigi</i>	Artificial active <i>Aktif buatan</i>

- 30 Table 2 shows the calorific values of three types of food.
Jadual 2 menunjukkan nilai kalori bagi tiga jenis makanan,

Foof <i>Makanan</i>	Calorific value(kJ/g) <i>Nilai kalori (kJ/g)</i>
Wholemeal bread <i>Roti mil penuh</i>	10.1
Cornflakes <i>Emping jagung</i>	15.3
Milk <i>Susu</i>	2.6

Table 2
Jadual 2

Amirul eats 25 g of wholemeal, 12 g of cornflakes and 130 g of milk. Calculate the calorific value of his food.

Amirul makan 25g roti mil penuh, 12 g emping jagung dan 130 g susu, Hitung nilai kalori dalam makanannya.

- A 387.1 kJ B 774.1 kJ
 C 602.8 kJ D 808.3 kJ

- 31 Which of the following is the best method to increase the fertility of agriculture land ?

Antara yang berikut, yang manakah merupakan kaedah terbaik untuk meningkatkan kesuburan tanah pertanian ?

- A Plant cover crops
Menanam tanaman tutup bumi
 - B Plant leguminous plant
Menanam tumbuhan kekacang
 - C Add slaked lime to the soil
Menambahkan kapur mati kepada tanah
 - D Build a good drainage system
Membina sistem saliran yang baik
- 32 Fresh fruits and vegetables are rich in all of the following **except**
*Buah-buahan dan sayur-sayuran segar kaya dengan semua yang berikut **kecuali***
- A minerals
mineral
 - B antioxidants
pengantioksida
 - C vitamins
vitamin
 - D saturated fats
lemak tepu
- 33 Diagram 18 shows an agricultural site near the river.
Rajah 18 menunjukkan sebuah kawasan pertanian yang berdekatan dengan sungai

Diagram 18
Rajah 18

What is the effect of excessive use of chemical fertilisers at this site ?
Apakah kesan sampingan akibat penggunaan baja kimia yang berlebihan di kawasan ini?

- A Excessive algae growth kills aquatic organisms
Pertumbuhan alga yang pesat membunuh organisma akuatik

- B Excessive algae growth beautifies the site
Pertumbuhan alga yang pesat mencantikkan kawasan tersebut
- C Excessive algae growth adds food for aquatic organisms
Pertumbuhan alga yang pesat menambahkan makanan kepada organisma akuatik
- D Excessive algae growth supplies more oxygen to the aquatic organisms
Pertumbuhan alga yang pesat membekalkan lebih banyak oksigen kepada organisma akuatik.
- 34 Diagram 19 shows a food chain in a field
Rajah 19 menunjukkan rantai makanan di sebuah padang.

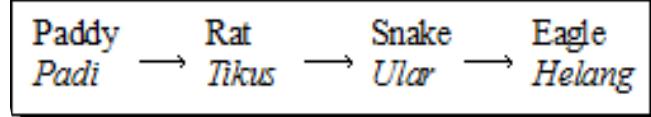


Diagram 19
Rajah 19

What would happen to the rat population and snake population if a large number of eagles die due to diseases?
Apakah yang akan berlaku kepada populasi tikus dan ular jika sebilangan besar helang mati akibat serangan penyakit?

	Rat population <i>Populasi tikus</i>	Snake population <i>Populasi ular</i>
A	Decrease <i>Berkurang</i>	No change <i>Tiada perubahan</i>
B	Decrease <i>Berkurang</i>	Decrease <i>Berkurang</i>
C	Increase <i>Meningkat</i>	Decrease <i>Berkurang</i>
D	Decrease <i>Berkurang</i>	<i>Increase</i> <i>Meningkat</i>

- 35 Uncontrolled logging has reduced the natural forest in Peninsular of Malaysia.
 What is the action to be taken to solve this problem ?
Pembalakan tanpa kawalan telah mengurangkan hutan semula jadi di Semenanjung Malaysia. Apakah tindakan yang perlu diambil untuk mengatasi masalah ini ?
- A Replanting
Penanaman semula
- B Increasing wood export
Tingkatkan eksport kayu
- C Opening new land for agriculture
Membuka tanah baru untuk pertanian

- D Developing new housing project
Membangunkan projek perumahan baru

- 36 Diagram 20 shows a man name Albert who is an alcoholic.
Rajah 20 menunjukkan Albert yang merupakan seorang penagih minuman beralkohol.



Diagram 20
Rajah 20

Predict the health problem that Albert may suffer.
Ramalkan masalah kesihatan yang mungkin dihidapi oleh Albert.

- | | |
|--|---|
| A Liver cancer
<i>Kanser hati</i> | B Diabetes
<i>Kencing manis</i> |
| C Artheriosclerosis
<i>Arteriosklerosis</i> | D Fast responses to stimuli
<i>Tindak balas yang cepat terhadap rangsangan</i> |

- 37 Diagram 21 shows a cross section of an artery.
Rajah 21 menunjukkan keratan rentas suatu arteri.

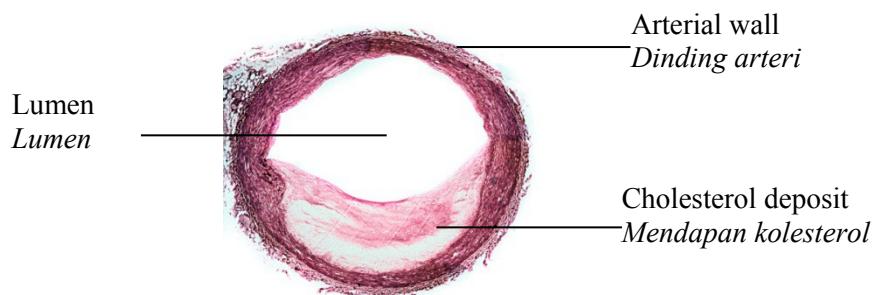


Diagram 21
Rajah 21

Which food if taken excessively can cause this situation?
Makanan manakah jika diambil secara berlebihan, boleh menyebabkan situasi ini?

- | | |
|--|--|
| A Fruits
<i>Buah-buahan</i> | B Mixed vegetables soup
<i>Sup sayur campur</i> |
| C Butter cream pasta
<i>Pasta mentega berkrim</i> | D Soya bean
<i>Kacang soya</i> |

- 38 Diagram 22 shows the process of making soap

Rajah 22 menunjukkan proses membuat sabun.

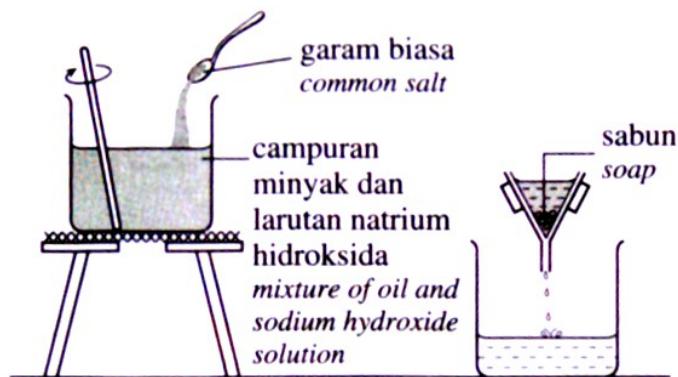


Diagram 22
Rajah 22

Why common salt must be added in the process

Mengapakah garam biasa perlu ditambah ke dalam proses ini

- A To separate the soap from the solution
Untuk memisahkan sabun daripada larutan
 - B To neutralise the soap solution
Untuk meneutralkan larutan sabun
 - C To give a sweet and nice smell
Untuk memberikan bau yang manis dan wangi
 - D To increase the rate of the chemical reaction
Untuk menambahkan kadar tindak balas kimia
- 39 Diagram 23 shows a stroke in the working of a four-stroke petrol engine.
Rajah 23 menunjukkan satu lejang yang bekerja dalam enjin petrol empat lejang

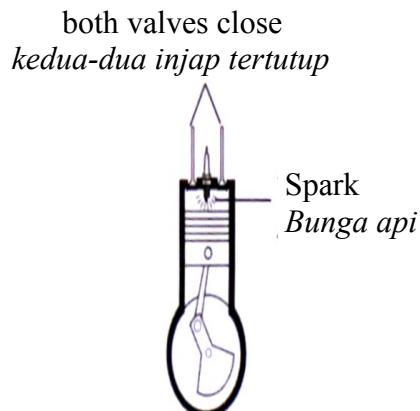


Diagram 23
Rajah 23

Which of the following statements about the stroke is **true**?

*Antara peryataan yang berikut, yang manakah **benar** tentang lejang itu?*

- A The piston is forced down the cylinder
Omboh dipaksa turun dalam silinder
 - B Exhaust gases are forced out of the cylinder
Gas ekzos dipaksa keluar dari silinder
 - C The mixture of the petrol and air is compressed.
Campuran petrol dan udara dimampatkan
 - D The mixture of the petrol and air is sucked into the cylinder
Campuran petrol dan udara disedut ke dalam silinder
- 40 Asyraf takes the bus to the library. A dog crosses the road causing the driver to hit the brake immediately. Diagram 24 shows how Ashraf experiences a sense of being thrown forward when the bus stopped suddenly.
- Asyraf menaiki bas ke perpustakaan. Seekor anjing melintas dan menyebabkan pemandunya menekan brek secara tiba-tiba. Rajah 24 menunjukkan bagaimana Asyraf mengalami rasa terhumban ke hadapan apabila bas itu berhenti secara tiba-tiba.*



Diagram 24
Rajah 24

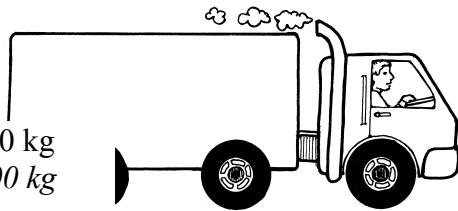
Why does this happen
Mengapakah hal ini berlaku?

- A Because of inertia
Disebabkan inersia
- B Because of pressure
Disebabkan tekanan
- C Because of acceleration
Disebabkan pecutan
- D Because the velocity changes
Disebabkan halaju berubah

- 41 Diagram 25 shows a lorry moving with a velocity of 15 ms^{-1} .

Rajah 25 menunjukkan sedang bergerak dengan

$$\begin{aligned}\text{Mass} &= 2800 \text{ kg} \\ \text{Jisim} &= 2800 \text{ kg}\end{aligned}$$



sebuah lori yang halaju 15 ms^{-1} .

Direction of movement
Arah pergerakan

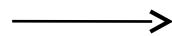


Diagram 25
Rajah 25

Calculate the momentum of the lorry.

Kirakan momentum lori tersebut.

$$\begin{aligned}\text{Momentum} &= \text{mass} \times \text{velocity} \\ \text{Momentum} &= \text{jisim} \times \text{halaju}\end{aligned}$$

- A 2815 kgms^{-1} B 2785 kgms^{-1}
C 42815 kgms^{-1} D 42000 kgms^{-1}

- 42 Suzy wants to take a walk on the beach. Which of the following shoes should she wear?
Suzy ingin berjalan-jalan di tepi pantai. Antara kasut yang berikut, yang manakah sesuai untuk dipakai oleh Suzy.

A



B



C



D



- 43 Diagram 26 shows a cross section of a submarine.

Rajah 26 menunjukkan keratan rentas kapal selam.

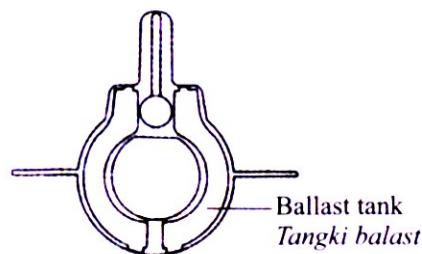


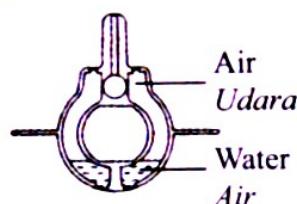
Diagram 26

Rajah 26

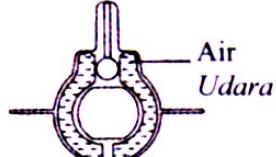
Which situation makes the submarine sink the deepest?

Situasi manakah yang menyebabkan kapal selam tenggelam paling dalam?

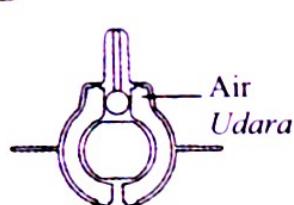
A



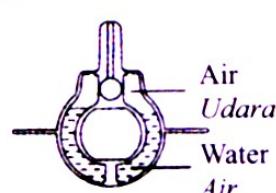
C



B



D



- 44 The following information shows the steps in food processing.

Maklumat berikut menunjukkan langkah-langkah dalam pemprosesan makanan.

Food is heated at 72°C for 15 second followed by instant cooling.

Makanan dipanaskan pada suhu 72°C selama 15 saat diikuti dengan penyejukan segera.

Which food is suitable to be processed by this method?
Makanan manakah yang sesuai diproses dengan kaedah ini?

- | | |
|-------------------------|--------------------------------|
| A Milk
<i>Susu</i> | C Cheese
<i>keju</i> |
| B Meat
<i>Daging</i> | D Vegetables
<i>sayuran</i> |

- 45 A housewife prepares ice cream by mixing milk with water and other ingredients. She forgets to put stabilizer in the ice cream.
 What will happen to the ice cream when it is frozen?
Seorang suri rumah menyediakan ais krim dengan mencampurkan susu dan air serta bahan-bahan lain. Dia terlupa meletakkan pengemulsi dalam ais krim tersebut. Apakah yang akan berlaku kepada ais krim itu apabila ia membeku?
- A The ice cream is spoilt
Air krim menjadi rosak
 - B The mixture is separated
Campuran akan terasing
 - C The ice cream will last longer
Ais krim tahan lebih lama
 - D The texture of ice cream becomes fine
Tekstur ais krim menjadi halus
- 46 What is the **correct** comparison between thermoplastic and thermosetting plastic.
*Manakah perbandingan yang **betul** tentang termoplastik dan plastik termoset.*

	Thermoplastic <i>Termoplastik</i>	Thermosetting plastic <i>plastic termoset</i>
A	Hard <i>Keras</i>	Soft <i>Lembut</i>
B	Resistant to heat <i>Tahan haba</i>	Can be repeatedly melted <i>boleh dilebur berulang kali</i>
C	Can conduct electricity <i>Boleh mengkonduksikan elektrik</i>	Cannot conduct electricity <i>Tidak mengkonduksikan elektrik</i>
D	Long thin chains of linear molecular <i>Rantai molekul yang panjang dan lurus</i>	Cross-linked molecules <i>Molekul berangkai silang</i>

- 47 Diagram 27 shows the examples of product made from subtansec X.
Rajah 27 menunjukkan contoh produk yang dihasilkan daripada bahan X.

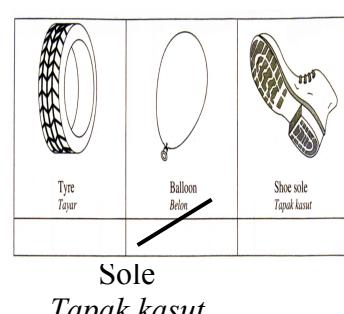
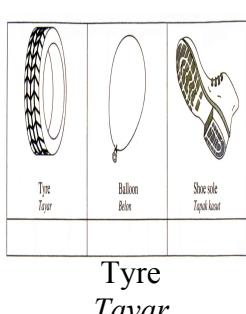


Diagram 27
Rajah 27

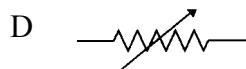
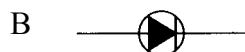
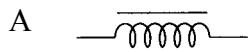
What is substance X ?

Apakah bahan X ?

- A Natural rubber
Getah asli
C Thermoplastics
Termoplastik

- B Synthetic rubber
Getah sintetik
D Thermoset
Termoset

- 48 Which electronic component controls the size of current in a circuit?
Manakah komponen elektronik yang mengawal saiz arus dalam litar?



- 49 Diagram 28 shows the radio wave.
Rajah 28 menunjukkan gelombang radio.

displacement/ sesaran

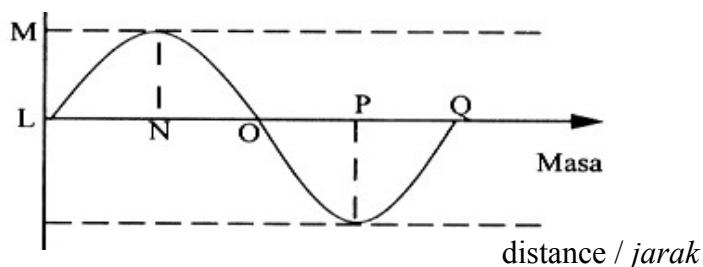


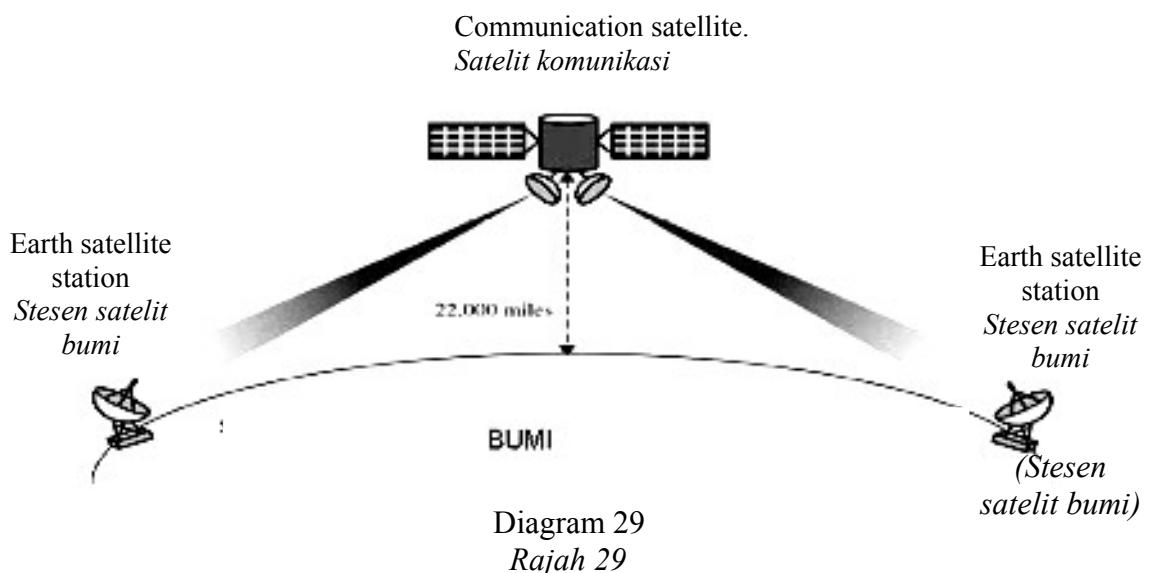
Diagram 28
Rajah 28

The wave length is
Panjang gelombang ialah

- A LM
C NP
- B LN
D LQ

- 50 Diagram 29 shows how information is transmitted between earth satellite stations and a communication satellite.

Rajah 29 menunjukkan bagaimana maklumat dipancarkan antara stesen satelit bumi dan satelit komunikasi.



What type of wave is used in this communication?

Apakah yang boleh menganggu penghantaran maklumat dari satu stesen ke stesen yang lain.

- A Tall Building
Bangunan tinggi
- B Cloud
Awan
- C Bad weather
Cuaca buruk
- D Mountain
Gunung

END OF QUESTION PAPER

KERTAS SOALAN TAMAT