1. Antara berikut,yang manakah ciri-ciri bahan yang boleh dibuang ke dalam singki?
*Which of the following is the characteristic of materials that can be disposed of into a sink?*

A Asid lemah
*Weak acid*
B Bahan meruap
*Volatile substance*
C Mempunyai nilai pH 10
*Having a pH value of 10*
D Bahan buangan radioaktif
*Radioactive waste*

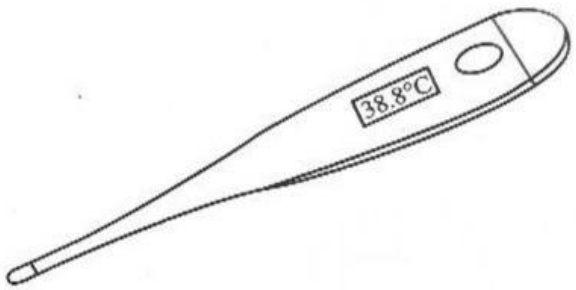
2. Apakah kepentingan melakukan teknik tekanan dada semasa memberikan bantuan kecemasan Resusitasi Kardiopulmonari (CPR)?
*What is the importance of performing chest compressions technique while providing Cardiopulmonary Resusitation (CPR) emergency help?*

A Menghantar oksigen terus ke otak
*Sends oxygen directly to the brain*
B Menghasilkan peredaran darah secara buatan
*Produces artificial blood circulation*
C Menerima udara beroksigen ke dalam peparunya
*Receiving oxygenated air into the lungs*
D Menyingkirkan karbon dioksida daripada badan mangsa
*Removes carbon dioxide from the victim's body*



LIVEWORKSHEETS

3. Rajah 1 menunjukkan bacaan suhu badan Wafiq.
*Diagram 1 shows Wafiq's body temperature reading.*




Rajah 1 / *Diagram 1*

Antara berikut, apakah faktor yang menyebabkan bacaan suhu tersebut?
*Which of the following is the factor that cause the temperature reading?*

A Jangkitan patogen
*Pathogen infection*

B Makan berlebihan
*Overeating*

C Kurang selera makan
*Loss of appetite*

D Cukup tidur 8 jam sehari
*Get enough sleep for 8 hours a day*



LIVEWORKSHEETS

4. Liyana mempunyai ketinggian 1.54 m dan berjisim 65 kg.
Apakah kategori Indeks Jisim Badan (BMI) Liyana?
*Liyana has a height of 1.54 m and mass of 65 kg.*
*What is the category of Liyana's Body Mass Index?*

$$\text{BMI} = \frac{\text{Jisim badan (kg)}}{(\text{ketinggian})^2\ (\text{m}^2)}$$

$$\textit{BMI} = \frac{\textit{Body mass (kg)}}{(\textit{Height})^2\ (\text{m}^2)}$$

| | BMI | Kategori<br>*Category* |
|---|---|---|
| A | < 18.5 | Kurang jisim badan<br>*Underweight* |
| B | 18.5 – 24.90 | Jisim badan unggul<br>*Desirable weight* |
| C | 25.0 – 29.9 | Berlebihan jisim badan<br>*Overweight* |
| D | ≥ 30.0 | Obes<br>*Obese* |

5. Antara berikut, yang manakah merupakan pengangkutan hijau?
*Which of the following is green transportation?*

A Kenderaan perkhidmatan
*Service vehicle*

B Pengangkutan awam
*Public transport*

C Basikal
*Bicycle*

D Teksi
*Taxi*



LIVEWORKSHEETS

6 Kaji pernyataan berikut,
*Examine the following statements,*

> Pak Ali mendapati tanah kebunnya tidak subur. Pokok yang ditanam kerap diserang oleh serangga perosak. Dia ingin mengatasi masalah tersebut tanpa mencemarkan tanah kebunnya.
> *Pak Ali found that the soil in his garden was not fertile. The trees planted often attacked by pests. He wanted to overcome the problem without polluting his garden soil.*

Apakah yang perlu dilakukan oleh Pak Ali?
*What should Pak Ali do?*

A Menggunakan baja kimia dan semburan racun
*Use chemical fertilizers and pesticides*

B Menggunakan baja kompos dan kawalan biologi
*Use compost and biological control*

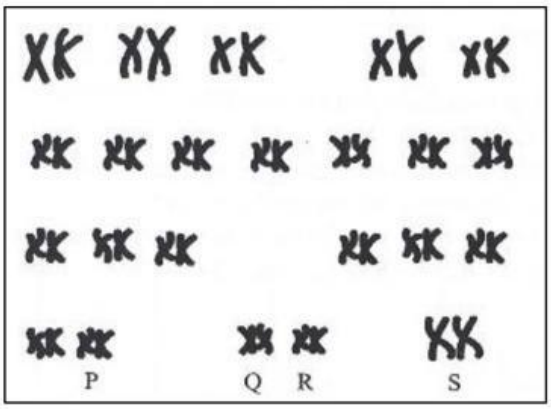
C Menggunakan baka terpilih dan baja bermutu tinggi
*Using selected breeds and high quality fertilizers*

D Menggunakan racun perosak dan peralatan berteknologi moden
*Using pesticides and equipment with modern technology*



LIVEWORKSHEETS

7 Rajah 2 menunjukkan kariotip bagi seorang individu.
*Diagram 2 shows a karyotype of an individual.*




Rajah 2 / *Diagram 2*

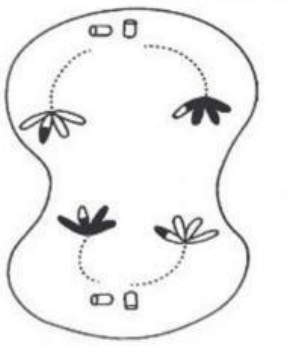
Antara yang berikut, kromosom homolog manakah yang menentukan jantina individu tersebut?
*Which of the following homologous chromosomes determines the gender of the individual?*

A P
B Q
C R
D S



LIVEWORKSHEETS

8 Rajah 3 menunjukkan satu fasa dalam proses pembahagian sel.
*Diagram 3 shows a phase in a cell division process.*



Rajah 3 / *Diagram 3*

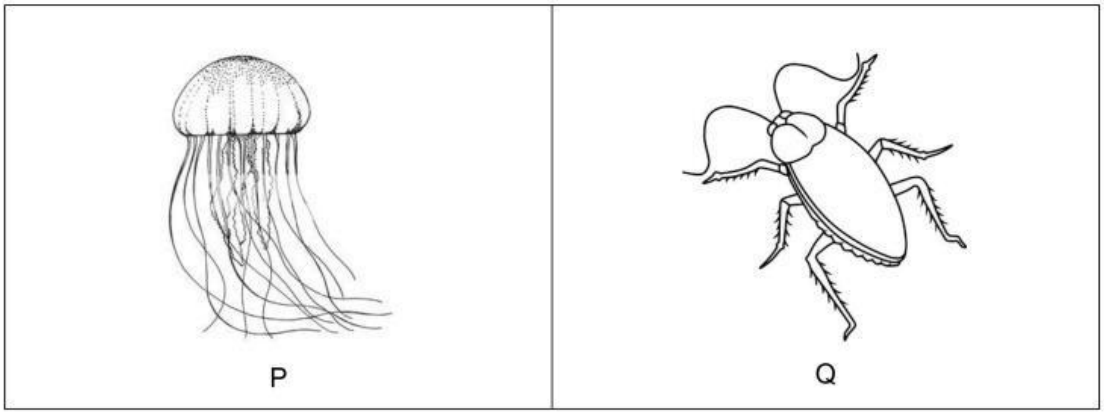
Di manakah proses ini berlaku?
*Where does this process occur?*

A Testis
*Testes*
B Ginjal
*Kidney*
C Peparu
*Lung*
D Rambut
*Hair*



LIVEWORKSHEETS

9. Rajah 4 menunjukkan dua jenis haiwan.
*Diagram 4 shows two type of animals.*




Rajah 4 / *Diagram 4*

Antara berikut, yang manakah betul mengenai sistem sokongan bagi haiwan P dan Q?
*Which of the following is correct about the support system for animal P and Q?*

| | P | Q |
|---|---|---|
| A | Rangka luar<br>*Exoskeleton* | Rangka hidrostatik<br>*Hydrostatic skeleton* |
| B | Rangka dalam<br>*Endoskeleton* | Rangka luar<br>*Exoskeleton* |
| C | Rangka hidrostatik<br>*Hydrostatic skeleton* | Rangka luar<br>*Exoskeleton* |
| D | Rangka luar<br>*Exoskeleton* | Rangka dalam<br>*Endoskeleton* |



LIVEWORKSHEETS

10 Bagaimanakah tumbuhan akuatik seperti teratai dapat terapung di permukaan air?
*How can aquatic plants like lilies float on the surface of the water?*

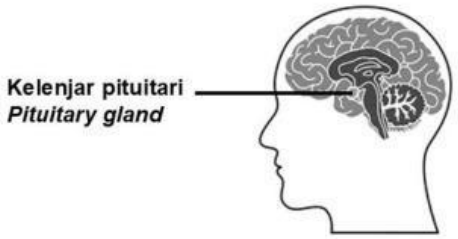
A Bergantung sepenuhnya kepada kekuatan arus air.
*Depends entirely on the strength of the water current.*

B Mengandungi lapisan lilin yang tebal pada permukaan daun.
*Has a thick waxy layer on the surface of the leaves*

C Terdapat akar yang sangat panjang sehingga ke dasar kolam.
*Has very long roots that reach the bottom of the pond*

D Mempunyai tisu aerenkima yang mengandungi banyak ruang udara.
*Has aerenchyma tissue that contains many air spaces.*

11. Rajah 5 menunjukkan satu kelenjar endokrin.
*Diagram 5 shows an endocrine gland.*




Rajah 5 / *Diagram 5*

Antara berikut, yang manakah kesan kekurangan hormon yang dirembeskan oleh kelenjar tersebut?
*Which of the following is a result of the lack of hormones secreted by the gland?*

A Merasa cemas
*Feeling anxious*

B Lambat akil baligh
*Delayed puberty*

C Sentiasa berasa dahaga
*Always feeling thirsty*

D Aras glukosa darah meningkat
*Blood glucose levels increase*



LIVEWORKSHEETS

12. Seorang murid cedera parah dalam satu kemalangan jalan raya.
Antara berikut, yang manakah boleh digunakan untuk mengurangkan kesakitan?
*A student was seriously injured in a road accident.*
*Which of the following can be used to reduce pain?*

A Morfin
*Morphine*
B Ketamin
*Ketamine*
C Barbiturat
*Barbiturates*
D Amfetamina
*Amphetamines*

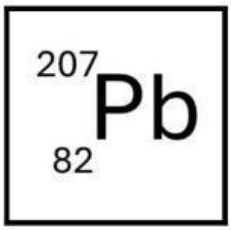
13. Berapakah bilangan atom dalam satu molekul air?
*How many atoms are in a water molecule?*

A 3
B 4
C 5
D 6



LIVEWORKSHEETS

14. Rajah 6 menunjukkan isotop plumbum.
*Diagram 6 shows the isotopes of lead.*




Rajah 6 / *Diagram 6*

Apakah nombor nukleon bagi isotop plumbum?
*What is the nucleon number of the isotope of lead?*

A 82
B 125
C 207
D 289

15. Keluli dan gangsa merupakan sejenis aloi.
Apakah komposisi unsur yang terdapat pada gangsa?
*Steel and bronze are alloys.*
*What is the composition of the elements found in bronze?*

A Aluminium dan zink
*Aluminium and zinc*
B Kuprum dan zink
*Copper and zinc*
C Besi dan karbon
*Iron and carbon*
D Kuprum dan timah
*Copper and tin*



LIVEWORKSHEETS

16. Bahan Q mempunyai sifat-sifat berikut :
*Substance Q has the following properties:*

- Tahan terhadap haba
  *Heat-resistant*
- Keras dan lebih kenyal
  *Hard and more elastic*
- Penebat elektrik yang baik
  *Good electrical insulation*

Bahan Q ialah
*Substance Q is*

A Perspeks
*Perspex*
B Getah asli
*Natural rubber*
C Polistirena
*Polystyrene*
D Getah tervulkan
*Vulcanised rubber*



LIVEWORKSHEETS

17. Rajah 7 menunjukkan satu kaedah perubatan.
*Diagram 7 shows a medical method.*



Rajah 7 / *Diagram 7*

Antara berikut, yang manakah ciri kaedah perubatan tersebut?
*Which of the following is the characteristic of the medical method?*

A Rawatan lebih berkesan dan cepat
*Treatment is effective and fast*

B Diwarisi dan diamalkan turun-temurun
*Inherited and practiced from generation to generation*

C Pembuktian keberkesanan secara klinikal
*The effectiveness is clinical tested*

D Tidak melibatkan pembedahan dan jahitan
*Does not involve surgery and stitches*



LIVEWORKSHEETS

18. Antara berikut, yang manakah faktor dalaman yang menghasilkan radikal bebas dalam badan manusia?
*Which of the following is an internal factor that produce free radicals in the human body?*

A Asap rokok
*Cigarette smoke*
B Keradangan
*Inflammation*
C Sinaran ultraungu
*Ultraviolet rays*
D Pencemaran udara
*Air pollution*

19. Berapakah pecutan Usain Bolt jika berlari dalam keadaan pegun dan mencecah halaju 10.44 $ms^{-1}$ di garisan penamat 100 meter dalam tempoh 9.58 saat?
*What is the acceleration of Usain Bolt if he starts from rest and attains a velocity of 10.44 $ms^{-1}$ at the 100 metres finish line in 9.58 seconds?*

$$\text{Pecutan} = \frac{\text{Halaju akhir- Halaju awal}}{\text{Masa}}$$

$$\textit{Acceleration} = \frac{\textit{Final velocity- Initial velocity}}{\textit{Times taken}}$$

A $-1.09\ ms^{-2}$
B $1.09\ ms^{-2}$
C $-9.09\ ms^{-2}$
D $9.09\ ms^{-2}$



LIVEWORKSHEETS

20. Kepala tukul yang longgar boleh diketatkan dengan menghentakkan bahagian pemegang tukul pada permukaan keras. Hentakan yang laju menyebabkan kepala tukul bergerak ke bawah.
Apakah yang menyebabkan keadaan itu berlaku?
*The loose head of a hammer can be tightened by banging its handle against a hard surface. A swift bang drives the hammer head downwards.*
*What causes the condition to occur?*

A Daya
*Force*
B Inersia
*Inertia*
C Pecutan
*Acceleration*
D Momentum
*Momentum*

21. Antara berikut, yang manakah kelebihan stesen jana kuasa tenaga nuklear?
*Which of the following is the advantage of nuclear power station?*

A Kos pembinaan yang rendah
*Low construction costs*
B Sumber tenaga yang mudah diperolehi
*Easily obtained sourse of energy*
C Membebaskan gas rumah hijau yang sedikit
*Release little greenhouse gases*
D Sisa radioaktif yang dihasilkan tidak menjejaskan kesihatan
*The radioactive waste produced does not affect health*



LIVEWORKSHEETS

22. Antara berikut, pilih padanan yang betul kesan somatik dan kesan genetik akibat penyebaran radiasi daripada ujian nuklear.
*Which the following matches of somatic and genetic effects of radiation spread from nuclear tests.*

| | **Kesan somatik**<br>***Somatic effects*** | **Kesan genetik**<br>***Genetic effects*** |
|---|---|---|
| A | Kanser<br>*Cancer* | Loya<br>*Nausea* |
| B | Keletihan<br>*Tiredness* | Katarak<br>*Cataract* |
| C | Mutasi sel<br>*Cell mutation* | Leukimia<br>*Leukaemia* |
| D | Keguguran rambut<br>*Hair loss* | Kecacatan pada bayi<br>*Deformation in babies* |

23. Antara berikut, mikroorganisma manakah boleh menjalankan proses fotosintesis?
*Which of the following microorganism can carry out the process of photosynthesis?*

A Alga
*Algae*
B Virus
*Virus*
C Fungi
*Fungi*
D Protozoa
*Protozoa*



LIVEWORKSHEETS