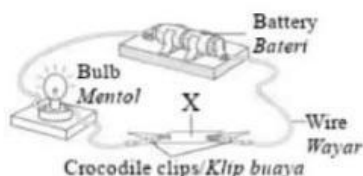


1. The diagram below shows an electrical circuit.  
Rajah di bawah menunjukkan satu litar elektrik.



The bulb lights up when the circuit is connected to X. Which of the following are most likely to represent as X?

Mentol itu menyala apabila litar itu disambungkan kepada X. Antara yang berikut, yang manakah besar kemungkinan mewakili X?

- I copper plate  
plat kuprum
- II iron plate  
plat besi
- III sulphur plate  
plat sulfur
- IV phosphorus plate  
plat fosforus

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

2. Which of the following groups consist of compounds only?  
Antara kumpulan berikut, yang manakah terdiri daripada sebatian sahaja?

- ☐ A Sugar, soil and diamond  
Gula, tanah dan berlian
- ☐ B Salt, toothpaste and soap  
Garam, ubat gigi dan sabun
- ☐ C Plastic, chlorine and petrol  
Plastik, klorin dan petrol
- ☐ D Oxygen, hydrogen and nitrogen  
Oksigen, hidrogen dan nitrogen

3. Which of the following materials is a non-metal and can conduct electric?  
Antara bahan-bahan berikut, yang manakah bukan logam dan boleh mengalirkan elektrik?

- ☐ A Copper wire  
Wayar kuprum
- ☐ B Carbon rod  
Rod karbon
- ☐ C Aluminium foil  
Kerajang aluminium
- ☐ D Iron plate  
Plat besi

4. The information below shows a definition.  
*Maklumat di bawah menunjukkan suatu definisi.*



A substance made up of at least two elements which are physically combined.  
*Suatu bahan yang terdiri daripada sekurang-kurangnya dua unsur yang bergabung secara fizikal.*

The definition refers to...  
*Definisi tersebut merujuk kepada...*

- ☐ A compound.  
*sebatian.*
- ☐ B mixture.  
*campuran.*
- ☐ C synthetic material.  
*bahan sintetik.*
- ☐ D alloy.  
*aloi.*

5. What factor is considered in the arrangement of the elements in the Periodic Table?  
*Apakah faktor yang dipertimbangkan dalam penyusunan unsur-unsur dalam Jadual Berkala?*

- ☐ A Nucleon number  
*Nombor nukleon*
- ☐ B Proton number  
*Nombor proton*
- ☐ C Number of neutrons  
*Bilangan neutron*
- ☐ D Number of electrons  
*Bilangan elektron*

6. Which of the following is not the property of a metal?  
*Antara yang berikut, yang manakah bukan sifat bagi logam?*

- ☐ A Malleable  
*Boleh ditempa*
- ☐ B Conduct electricity  
*Mengalirkan elektrik*
- ☐ C Ductile  
*Mulur*
- ☐ D Low melting point  
*Takat lebur rendah*

7. Which of the following mixtures can be separated by filtration?  
*Antara campuran berikut, yang manakah boleh diasingkan melalui penurasan?*

- ☐ A Water and sand  
*Air dan pasir*
- ☐ B Water and sugar solution  
*Air dan larutan gula*
- ☐ C Water and oil  
*Air dan minyak*
- ☐ D Sand and salt mixture  
*Campuran pasir dan garam*

8. Which of the following non-metal elements is used for filling weather balloons?  
Antara unsur bukan logam berikut, yang manakah digunakan untuk mengisi belon kaji cuaca?

- ☐ A Chlorine  
Klorin
- ☐ B Bromine  
Bromin
- ☐ C Helium  
Helium
- ☐ D Oxygen  
Oksigen

9. The information below shows the characteristics of a substance.  
Maklumat di bawah menunjukkan ciri-ciri bagi suatu bahan.

- Consists of more than one type of particles  
Terdiri daripada lebih dari satu jenis zarah
- Can be physically separated into its components  
Boleh diasingkan secara fizikal kepada komponen-komponennya
- Does not involve in chemical reactions  
Tidak melibatkan tindak balas kimia

The substance is most probably...  
Bahan tersebut berkemungkinan besar ialah...

- ☐ A an element.  
unsur.
- ☐ B a compound.  
sebatian.
- ☐ C a mixture.  
campuran.
- ☐ D a non-metal.  
bukan logam.

10. Which of the following is **not** a property of a metal?  
Antara yang berikut, yang manakah **bukan** ciri bagi suatu logam?

- ☐ A It is not malleable.  
Tidak boleh dibentuk.
- ☐ B It has a high melting point.  
Mempunyai takat lebur yang tinggi.
- ☐ C It can be bent and stretched.  
Boleh dibengkok dan diregangkan.
- ☐ D It is a good conductor of heat.  
Merupakan konduktor haba yang baik.

11. A mixture of copper filings, iron powder and fine sugar is separated into its components using the following methods.

Suatu campuran serbuk kuprum, serbuk besi dan gula halus diasingkan kepada komponennya dengan menggunakan kaedah-kaedah yang berikut.

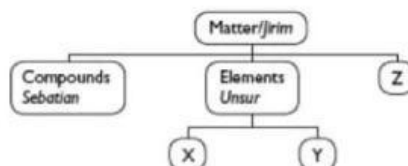
K – Evaporation  
Penyejatan  
L – Filtration  
Penurasan  
M – Dissolving in water  
Pelarutan di dalam air  
N – Using a magnet  
Menggunakan magnet

Which of the following is the correct order in which these methods of separation should be used?  
Antara yang berikut, urutan manakah yang betul bagi kaedah pengasingan yang sepatutnya digunakan?

- ☐ A K → L → M → N  
☐ B N → M → L → K  
☐ C N → M → K → L  
☐ D M → K → L → N

12. The diagram below shows a classification of matter.

Rajah di bawah menunjukkan pengelasan jirim.



Which of the following are represented by X, Y and Z?  
Antara yang berikut, manakah yang diwakili oleh X, Y dan Z?

- ☐ A
- | X                | Y                   | Z                  |
|------------------|---------------------|--------------------|
| Carbon<br>Karbon | Potassium<br>Kalium | Mercury<br>Merkuri |
- ☐ B
- | X               | Y               | Z                  |
|-----------------|-----------------|--------------------|
| Iodine<br>Iodin | Silver<br>Perak | Ammonia<br>Ammonia |
- ☐ C
- | X            | Y                 | Z            |
|--------------|-------------------|--------------|
| Iron<br>Besi | Sulphur<br>Sulfur | Air<br>Udara |
- ☐ D
- | X                  | Y            | Z            |
|--------------------|--------------|--------------|
| Mercury<br>Merkuri | Tin<br>Timah | Air<br>Udara |

13. Which of the following substances is a compound?

Antara bahan berikut, yang manakah merupakan sebatian?

- ☐ A Ammonia  
Ammonia  
☐ B Silver  
Perak  
☐ C Mercury  
Merkuri  
☐ D Nitrogen  
Nitrogen

14. The following are three elements.  
Berikut merupakan tiga jenis unsur.

- Neon/Neon
- Argon/Argon
- Helium/Helium

Which of the following is **not** the property of the three elements above?  
Antara yang berikut, yang manakah **bukan** ciri-ciri unsur di atas?

- ☐ A Inert gases  
Merupakan gas nadir
- ☐ B Initiate respiration  
Membantu pernafasan
- ☐ C Exist in gaseous state  
Wujud dalam keadaan gas
- ☐ D Element in group 18 in the Periodic Table  
Unsur kumpulan 18 dalam Jadual Berkala

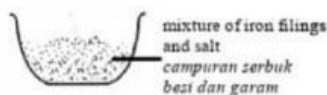
15. Which of the following is **not** true about elements?  
Antara yang berikut, yang manakah **tidak** benar tentang unsur?

- ☐ A Gold and silver are examples of elements.  
Emas dan perak adalah contoh unsur.
- ☐ B An element is made up of only one type of particle.  
Suatu unsur terdiri daripada hanya satu jenis zarah sahaja.
- ☐ C An element can be broken down into simpler substances by physical methods.  
Suatu unsur boleh dipecahkan kepada bahan yang lebih ringkas melalui kaedah fizikal.
- ☐ D An element cannot be broken down into simpler substances by any physical methods.  
Suatu unsur tidak boleh dipecahkan kepada bahan yang lebih ringkas melalui mana-mana kaedah fizikal.

16. Which of the following represents a compound?  
Antara yang berikut, yang manakah mewakili suatu sebatian?

- ☐ A 
- ☐ B 
- ☐ C 
- ☐ D 

17. The diagram below shows a mixture of iron filings and salt.  
Rajah di bawah menunjukkan campuran serbuk besi dan garam.



The above mixture can be separated by...  
Campuran di atas boleh diasingkan melalui...

- ☐ A chromatography.  
kromatografi.
- ☐ B filtration.  
penurasan.
- ☐ C using a magnet.  
penggunaan magnet.
- ☐ D distillation method.  
kaedah penyulingan.

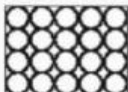
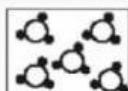
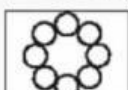
18. The table below shows some compounds and their elements.  
Jadual di bawah menunjukkan beberapa sebatian dan unsur-unsurnya.

| Compound<br>Sebatian | Elements<br>Unsur                 |
|----------------------|-----------------------------------|
| Water<br>Air         | P, Q                              |
| R                    | Carbon, oxygen<br>Karbon, oksigen |

Which of the following is represented by P, Q and R?  
Antara yang berikut, yang manakah diwakili oleh P, Q dan R?

- ☐ A
- | P                | Q                    | R                                 |
|------------------|----------------------|-----------------------------------|
| Carbon<br>Karbon | Hydrogen<br>Hidrogen | Carbon sulphide<br>Karbon sulfida |
- ☐ B
- | P                 | Q                    | R                                 |
|-------------------|----------------------|-----------------------------------|
| Oxygen<br>Oksigen | Hydrogen<br>Hidrogen | Carbon dioxide<br>Karbon dioksida |
- ☐ C
- | P                    | Q                 | R                                 |
|----------------------|-------------------|-----------------------------------|
| Nitrogen<br>Nitrogen | Oxygen<br>Oksigen | Carbon dioxide<br>Karbon dioksida |
- ☐ D
- | P                    | Q                 | R                             |
|----------------------|-------------------|-------------------------------|
| Hydrogen<br>Hidrogen | Sulphur<br>Sulfur | Iron sulphide<br>Besi sulfida |

19. Which of the following is a mixture?  
Antara yang berikut, yang manakah suatu campuran?

- ☐ A
- 
- ☐ B
- 
- ☐ C
- 
- ☐ D
- 

20. Which of the following characteristics of metals and non-metals is correct?  
Antara ciri-ciri logam dan bukan logam berikut, yang manakah adalah betul?

- ☐ A
- | Metals<br>Logam | Non-metals<br>Bukan logam |
|-----------------|---------------------------|
| Dull<br>Pudar   | Shiny<br>Berkilat         |
- ☐ B
- | Metals<br>Logam  | Non-metals<br>Bukan logam |
|------------------|---------------------------|
| Ductile<br>Mulur | Brittle<br>Rapuh          |
- ☐ C
- | Metals<br>Logam                  | Non-metals<br>Bukan logam         |
|----------------------------------|-----------------------------------|
| Low density<br>Ketumpatan rendah | High density<br>Ketumpatan tinggi |
- ☐ D
- | Metals<br>Logam                                    | Non-metals<br>Bukan logam                         |
|----------------------------------------------------|---------------------------------------------------|
| Poor conductor of heat<br>Pengalir haba yang lemah | Good conductor of heat<br>Pengalir haba yang baik |