

- 31 Diagram 7 shows the set up of apparatus for an experiment involving a chemical cell.  
*Rajah 7 di bawah menunjukkan susunan radas bagi satu eksperimen yang melibatkan sel kimia.*

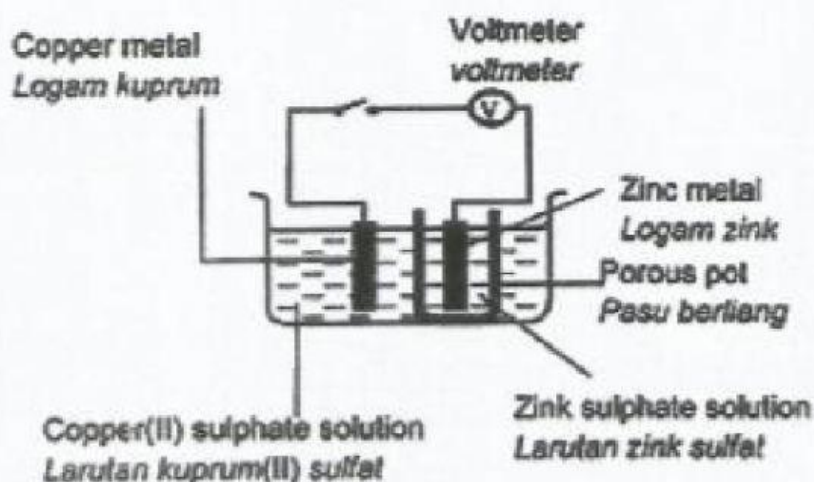


Diagram / Rajah 7

Which of the following statements are true about the above experiment?  
*Pernyataan manakah benar tentang eksperimen di atas?*

- I. Copper metal becomes thinner  
*Logam kuprum semakin menipis*
  - II. Zinc metal becomes thinner  
*Logam zink semakin menipis*
  - III. Blue color of copper(II) sulphate solution is fading  
*Warna biru larutan kuprum(II) sulfat semakin pudar*
  - IV. Brown deposit formed at zinc electrode  
*Enapan perang terbentuk di elektrod zink*
- 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*

- 32 Diagram 8 shows the arrangement of particles in three state of matter at room temperature.  
*Rajah 8 menunjukkan susunan zarah dalam tiga keadaan jirim pada suhu bilik.*

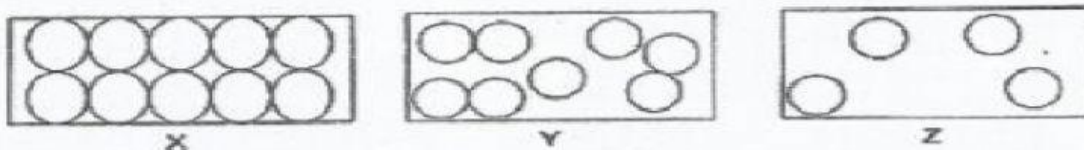


Diagram / Rajah 8

What are substances X, Y and Z at room temperature?  
*Apakah bahan X, Y dan Z pada suhu bilik?*

|   | X                               | Y                               | Z                               |
|---|---------------------------------|---------------------------------|---------------------------------|
| A | Bromine<br><i>Bromin</i>        | Naphthalene<br><i>Naftalena</i> | Nitrogen<br><i>Nitrogen</i>     |
| B | Naphthalene<br><i>Naftalena</i> | Bromine<br><i>Bromin</i>        | Nitrogen<br><i>Nitrogen</i>     |
| C | Nitrogen<br><i>Nitrogen</i>     | Bromine<br><i>Bromin</i>        | Naphthalene<br><i>Naftalena</i> |
| D | Naphthalene<br><i>Naftalena</i> | Nitrogen<br><i>Nitrogen</i>     | Bromine<br><i>Bromin</i>        |

- 33 Diagram 9 shows a series of tests carried out on solution Y.  
*Rajah 9 menunjukkan satu siri ujian telah dijalankan ke atas larutan Y.*

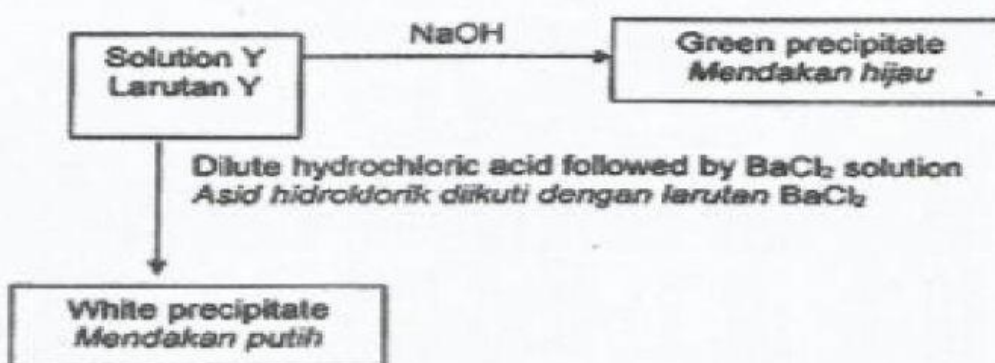
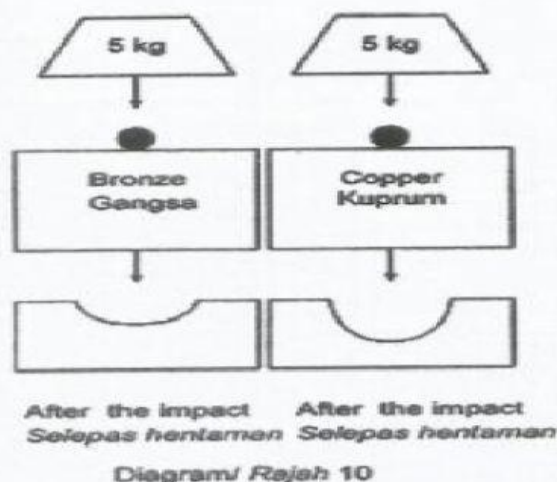


Diagram / Rajah 9

Which of the following is most likely to be solution Y.  
*Antara berikut manakah kemungkinan larutan Y.*

- A Iron(II) sulphate  
*Ferum(II) sulfat*
- B Lead(II) sulphate  
*Plumbum(II) sulfat*
- C Iron(II) chloride  
*Ferum(II) klorida*
- D Copper(II) carbonate  
*Kuprum(II) karbonat*

- 34 Diagram 10 below shows the effect of a weight that is dropped onto steel ball bearing placed on bronze and copper blocks.  
 Rajah 10 di bawah menunjukkan kesan satu pemberat diletakkan ke atas bebola ketuli yang terletak di atas bongkah gangsa dan kuprum.

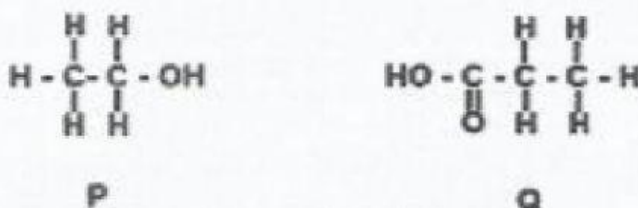


What is the characteristic shown by the bronze block?  
 Apakah sifat yang ditunjukkan oleh bongkah gangsa?

- A Shiny  
Berkilap
  - B Light  
Ringan
  - C Strong and hard  
Kuat dan keras
  - D Able to withstand corrosion  
Boleh menahan kakisan
- 35 0.2 mol of magnesium tape reacts with excess dilute nitric acid. After 30 seconds 0.05 mol of magnesium remains as residue. What is the average rate of reaction?  
 0.2 mol pita magnesium bertindak balas dengan asid nitrik cair berlebihan. Selepas 30 saat, didapati 0.05 mol magnesium tertinggal sebagai baki. Berapakah kadar tindak balas purata itu?
- A  $1.7 \times 10^{-3} \text{ mol s}^{-1}$
  - B  $1.5 \times 10^{-3} \text{ mol s}^{-1}$
  - C  $2.3 \times 10^{-3} \text{ mol s}^{-1}$
  - D  $5.0 \times 10^{-3} \text{ mol s}^{-1}$



- 36 Diagram 11 below are the structural formulae which represent organic compounds P and Q.  
 Rajah 11 di bawah menunjukkan formula struktur yang mewakili sebatian organik P dan Q.



Diagram/ Rajah 11

What is the name of the compound formed when compound P reacts with compound Q using concentrated sulphuric acid as a catalyst?

Apakah nama sebatian yang terhasil apabila sebatian P bertindak balas dengan sebatian Q dengan menggunakan asid sulfurik pekat sebagai mangkin?

- A Butyl ethanoate  
Butil etanoat
- B Ethyl butanoate  
Etil butanoat
- C Propyl ethanoate  
Propil etanoat
- D Ethyl propanoate  
Etil propanoat

- 37 Magnesium react with hydrochloric acid, state the process happen to magnesium and hydrogen ion?

Magnesium bertindak balas dengan asid hidroklorik, nyatakan proses yang berlaku kepada magnesium dan ion hidrogen?

|   | Magnesium<br>Magnesium    | Hydrogen ion<br>Ion hidrogen |
|---|---------------------------|------------------------------|
| A | Oxidation<br>Pengoksidaan | Reduction<br>Penurunan       |
| B | Reduction<br>Penurunan    | Oxidation<br>Pengoksidaan    |
| C | Oxidation<br>Pengoksidaan | Oxidation<br>Pengoksidaan    |
| D | Reduction<br>Penurunan    | Reduction<br>Penurunan       |

- 38 A student wants to study the heat of displacement by using lead metal. Which of the solutions are suitable to be use in this experiment?  
*Saorang pelajar ingin mengkaji haba penyesaran menggunakan logam plumbum. Yang manakah larutan yang sesuai digunakan dalam eksperimen ini?*

- I Zinc nitrate  
*Zink nitrat*
  - II Copper (II) nitrate  
*Kuprum(II) nitrat*
  - III Silver nitrate  
*Argentum nitrat*
  - IV Magnesium nitrate  
*Magnesium nitrat*
- A I and III  
*I dan III*
  - B I and IV  
*I dan IV*
  - C II and III  
*II dan III*
  - D II and IV  
*II dan IV*

- 39 Diagram 12 shows a child having fever. Her mother takes him to a doctor. What medicine the doctor prescribed to the child?  
*Rajah 12 menunjukkan seorang kanak-kanak yang demam. Ibunya membawa kanak-kanak itu berjumpa doktor. Apakah ubat yang doktor akan preskripsi kepada kanak-kanak itu?*



Diagram/ Rajah 12

- A Aspirin  
Aspirin
- B Barbiturate  
Barbiturat
- C Penicillin  
Penisilin
- D Paracetamol  
Parasetamol
- 40 Every morning, Muthu helped his father to collect latex from the rubber tree. He found that the latex coagulated after a few hours. How muthu can prevent the latex from coagulating?  
*Setiap pagi, Muthu menolong ayahnya mengumpul latek dari pokok getah. Dia mendapati, latek mengumpal selepas beberapa jam. Bagaimanakah Muthu dapat mengelakan latek daripada mengumpal?*
- A Add ammonia solution  
Tambah larutan ammonia
- B Add sodium chloride solution  
Tambah larutan natrium klorida
- C Add ethanoic acid  
Tambah asid etanoik
- D Add sulphur monochloride  
Tambah sulfur monoklorida