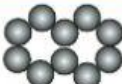


- 1 Nyatakan jenis bahan berdasarkan rajah dan maksudnya. Kemudian, kelaskan bahan-bahan daripada maklumat yang diberi./State the types of substances based on the diagrams and the meanings. Then, classify the substances from the given information. **TP1**

|                                 |                                                 |                               |                     |                                            |                          |
|---------------------------------|-------------------------------------------------|-------------------------------|---------------------|--------------------------------------------|--------------------------|
| Kuprum<br><i>Copper</i>         | Kuprum(II) sulfat<br><i>Copper(II) sulphate</i> | Oksigen<br><i>Oxygen</i>      | Zink<br><i>Zinc</i> | Magnesium oksida<br><i>Magnesium oxide</i> | Bromin<br><i>Bromine</i> |
| Naftalena<br><i>Naphthalene</i> | Karbon dioksida<br><i>Carbon dioxide</i>        | Aluminium<br><i>Aluminium</i> | Air<br><i>Water</i> | Natrium klorida<br><i>Sodium chloride</i>  | Besi<br><i>Iron</i>      |

| Bahan/Substances                                                                        | Maksud/Meanings                                                                                          | Contoh/Examples |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------|
| (a)    | Bahan yang terdiri daripada zarah atom sahaja<br><i>Substance made up of atomic particles only</i>       |                 |
| (b)    | Bahan yang terdiri daripada zarah molekul sahaja<br><i>Substance made up of molecular particles only</i> |                 |
| (c)  | Bahan yang terdiri daripada zarah ion sahaja<br><i>Substance made up of ionic particles only</i>         |                 |

- 2 Bandingkan ciri-ciri bahan atom, bahan molekul dan bahan ion. **TP2**  
Compare the physical properties of atomic substances, molecular substances and ionic substances.

|             |                |               |                    |               |
|-------------|----------------|---------------|--------------------|---------------|
| Gas/Gas     | Tinggi/High    | Pepejal/Solid | Boleh/Can          | Lemah/Weak    |
| Kuat/Strong | Leburan/Molten | Rendah/Low    | Tidak boleh/Cannot | Cecair/Liquid |

| Ciri-ciri<br>Properties                                                            | Bahan atom<br>Atomic substances                             | Bahan molekul<br>Molecular substances                       | Bahan ion<br>Ionic substances                                                                            |
|------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| (a) Keadaan fizikal pada suhu bilik<br><i>Physical state at room temperature</i>   |                                                             |                                                             | <br>Praktis Kendiri |
| (b) Daya tarikan antara zarah<br><i>Forces of attraction between the particles</i> |                                                             |                                                             |                                                                                                          |
| (c) Takat lebur dan takat didih/ <i>Melting and boiling points</i>                 |                                                             |                                                             |                                                                                                          |
| (d) Kekonduksian elektrik<br><i>Electrical conductivity</i>                        | _____ mengkonduksikan elektrik<br>_____ conduct electricity | _____ mengkonduksikan elektrik<br>_____ conduct electricity | Dalam keadaan _____ atau larutan akueus<br><i>In _____ state or aqueous solution</i>                     |

Nyatakan jenis bahan bagi unsur dalam pelbagai bentuk di bawah. **TP1**  
State the type of substance for elements in various forms below.

Buku Teks m/s 170

Bahan atom  
Atomic substance

Bahan molekul  
Molecular substance

Bahan ion  
Ionic substance

1 Pelbagai bentuk unsur ferum (besi)/Various forms of iron elements

(a)



Tukul besi/Hammer

(b)



Karat/Rust

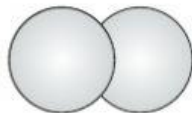
(c)



Makanan seperti bayam  
Food like spinach

2 Pelbagai bentuk unsur hidrogen/Various forms of hydrogen elements

(a)



Gas hidrogen/Hydrogen gas

(b)



Air/Water

(c)



Jus lemon/Lemon juice

3 Pelbagai bentuk unsur oksigen/Various forms of oxygen elements

(a)



Air/Water

(b)



Karat/Rust

(c)



Oksigen dalam tangki  
oksigen  
Oxygen in oxygen tanks