

BAHAGIAN A / SECTION A

- 1 Berikut merupakan contoh-contoh jirim, kecuali

The following are examples of matter, except

- | | |
|------------------|---------------------------|
| A pasir
sand | C bayang-bayang
shadow |
| B rambut
hair | D kulat
fungi |

- 2 Tindak balas sesuatu bahan dengan api merupakan sifat kimia sesuatu jirim kerana

A matter reaction with fire is a chemical property of matter because

- A jisim bahan berkurang setelah bertindak balas dengan api
substance's mass reduced after reacts with fire
- B bahan baru terbentuk setelah bahan itu bertindak balas dengan api
new substance formed after the substance reacts with fire
- C tindak balas bahan dengan api dapat dikesan melalui deria manusia
the reaction of substance with fire can be detected through human senses
- D api ialah bukan jirim
fire is a non-matter

- 3 Pernyataan di bawah merujuk kepada sifat-sifat fizikal jirim X.

The statements below refer to physical properties of matter X.

- Kurang tumpat daripada air
Less dense than water
- Mempunyai takat didih lebih rendah daripada air
Has lower boiling point than water
- Pelarut yang baik
A good solvent

Jirim X merujuk kepada
Matter X refers to

- | | |
|-------------------------------|----------------------|
| A petroleum
petroleum | C oksigen
oxygen |
| B minyak masak
cooking oil | D alkohol
alcohol |

- 4 Pernyataan yang manakah berikut betul tentang gas?

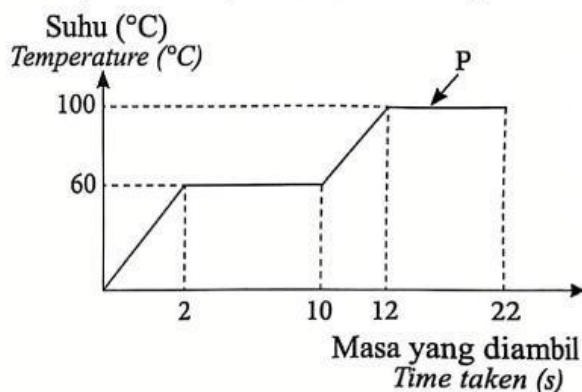
Which of the following statements are correct about gas?

- I Zarah tersusun jauh antara satu sama lain
Particles arranged further apart to each other
- II Boleh dimampatkan
Compressible
- III Mempunyai ketumpatan yang tinggi
Has high density
- IV Mempunyai isi padu yang tidak tetap
Has no fixed volume
- | | |
|---|--|
| A I, II dan III
<i>I, II and III</i> | C I, II dan IV
<i>I, II and IV</i> |
| B II, III dan IV
<i>II, III and IV</i> | D Semua di atas
<i>All of the above</i> |

- 5 Sharwin menjalankan eksperimen untuk menguji takat didih air. Dia mencatatkan masa yang diambil melawan suhu dan memplot graf seperti dalam rajah di bawah.

KBAT
NOTES

Sharwin conducted an experiment to investigate boiling point of water. He recorded time taken against temperature and plot a graph as in diagram below



Apakah keadaan air pada peringkat P?
What is the state of water at stage P?

- A Cecair
Liquid
- B Gas
Gas
- C Cecair dan gas
Liquid and gas
- D Pepejal
Solid

- [illegible]

A zarah gas berjauhan antara satu sama lain
gas particles are further apart

B zarah gas mempunyai tenaga kinetik yang rendah
gas particles have low kinetic energy

C gas mudah dimampatkan
gas is easily compressed

D gas tidak mempunyai isi padu yang tetap
gas does not have fixed volume

-

A penyejatan
evaporation
B kondensasi
condensation
C resapan
diffusion
D pemejalwapan
sublimation

- 
- A diagram of a nucleus, which is a cluster of protons and neutrons. The protons are represented by dark grey spheres, and the neutrons are represented by light grey spheres. Labels with arrows point to a dark grey sphere labeled 'Proton' and a light grey sphere labeled 'Neutron'.

A	15	C	7
B	1	D	8

-
- A 10x10 grid with a 10x5 black rectangle in the top-left and a 5x5 black rectangle in the bottom-right. The letters P, Q, R, and S are placed in white cells. P is at (1,2), Q is at (4,3), R is at (6,8), and S is at (6,9).

A	P	C	R
B	Q	D	S

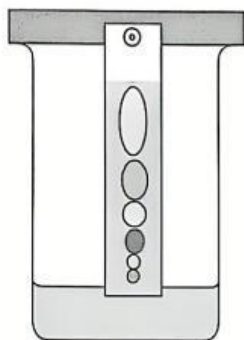
- Berkilau
Shiny
- Mulur dan boleh ditempa
Ductile and malleable
- Tidak terhakis oleh asid
Cannot be corroded by acids

A aluminium <i>aluminium</i>	C kuprum <i>copper</i>
B emas <i>gold</i>	D zink <i>zinc</i>

- 11 Berikut adalah kegunaan unsur bukan logam yang betul, **kecuali**
The following are the uses of non-metal element, except

	Unsur bukan logam Non-metal element	Kegunaan Use
A	Karbon Carbon	Membuat elektrod sel kering Make dry cell electrode
B	Klorin Chlorine	Membuat bahan peluntur Make bleaching agent
C	Iodin Iodine	Membuat bahan antiseptik Make antiseptic substance
D	Sulfur Sulphur	Membuat mata pensel Make pencil lead

- 12 Rajah menunjukkan kaedah kromatografi.
Diagram shows a chromatography method.



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Antara berikut, yang manakah kegunaan kaedah ini dalam kehidupan harian?

Which of the following are the uses of this method in our daily life?

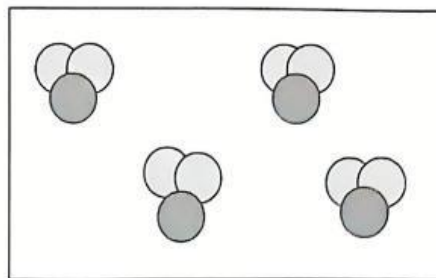
- I Mengasingkan etanol dalam air
Separating ethanol in water
 - II Mengukur kandungan gula dalam makanan
Measuring sugar content in food
 - III Mengesan kandungan dadah dalam air kencing
Detecting drug content in urine
 - IV Memeriksa bahan pewarna dalam makanan
Checking colouring substances in food
- A I dan II C III dan IV
I and II III and IV
- B I dan IV D II dan IV
I and VI II and IV

- 13 Berikut merupakan contoh-contoh sebatian, **kecuali**

The following are examples of compound, except

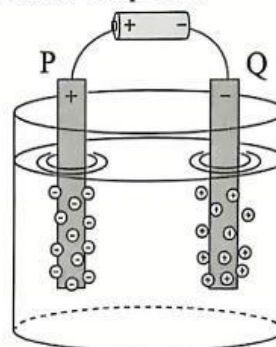
- A susu C garam
milk salt
- B gula D serbuk penaik
sugar baking powder

- 14 Rajah di bawah merujuk kepada
Diagram below refers to



- A zarah subatom C campuran
subatomic particle mixture
- B unsur D sebatian
element compound

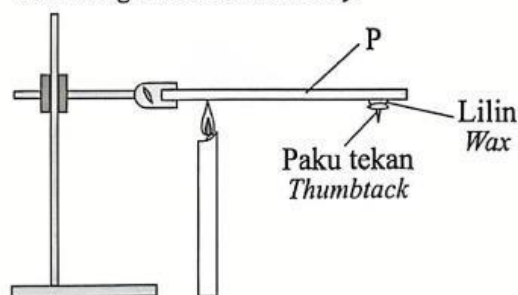
- 15 Rajah menunjukkan proses elektrolisis yang digunakan untuk memisahkan sebatian air.
Diagram shows the electrolysis process that is used to separate water compound.



Nisbah gas yang terkumpul di P kepada Q ialah
Ratio of gas collected at P to Q is

- A 1: 2 C 1: 3
B 2: 1 D 3: 1

- 16 Rajah menunjukkan susunan radas dalam suatu eksperimen untuk mengkaji kekonduksian haba.
Diagram shows the apparatus setup in an experiment to investigate heat conductivity.



Antara bahan rod P berikut, yang manakah memerlukan masa yang paling pendek untuk menjatuhkan paku tekan?

Which of the following materials of rod P requires the shortest time to drop the thumbtack?

- A Karbon C Kaca
Carbon Glass
- B Kuprum D Sulfur
Copper Sulphur