GERAK GEMPUR 5

Jirim
Matter

BAHAGIAN A

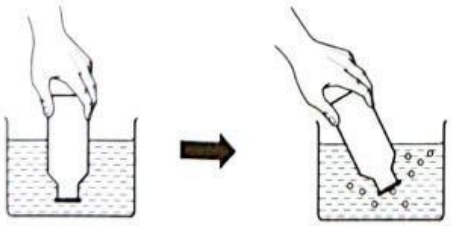
Arahan: Jawab **semua** soalan.
Instruction: *Answer* **all** *questions.*

1 Antara yang berikut, yang manakah adalah jirim?
Which of the following statements are matters?

I Cahaya / *Light*
II Bunyi / *Sound*
III Air / *Water*
IV Udara / *Air*

A I dan II / I *and* II
B II dan III / II *and* III
C III dan IV / III *and* IV
D I dan IV / I *and* IV

2 Rajah di bawah menunjukkan satu botol kosong ditelangkupkan ke dalam besen yang berisi air. Gelembung udara kelihatan apabila botol disengetkan.
The diagram below shows an empty bottle which is inverted in a basin full of water. Air bubbles are visible when the bottle is tilted.



Apakah sifat jirim yang telah dibuktikan daripada aktiviti ini?
What is the property of matter proved in this activity?

A Udara adalah suatu gas
Air is a gas
B Udara mempunyai jisim
Air has mass
C Udara mengembang
Air is expanding
D Udara memenuhi ruang
Air occupies space

3 Antara pernyataan berikut, yang manakah benar tentang teori kinetik jirim?
Which of the following statements about the kinetic theory of matter is true?

A Semua jirim terdiri daripada zarah halus dan diskrit yang sentiasa bergerak ke semua arah.
All matter consists of small and discrete particles that are constantly moving.
B Semua jirim mengandungi zarah yang sentiasa bergerak dan dapat dilihat dengan mata kasar.
All matter contains particles that are constantly moving and can be seen with the naked eye.
C Semua jirim terdiri daripada zarah halus dan diskrit yang tidak bergerak.
All matter consists of small and discrete particles that do not move.
D Semua jirim mengandungi zarah yang bercas positif dan negatif.
All matter contains particles that are positively and negatively charged.

4 Antara yang berikut, yang manakah merupakan sifat bagi keadaan jirim gas?
Which of the following is a characteristic of the gaseous state of matter?

A Bentuk tetap
Fixed shape
B Jisim tetap
Fixed mass
C Isi padu tetap
Fixed volume
D Boleh dimampatkan
Compressible

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5 Rajah di bawah menunjukkan susunan zarah dalam bahan X.
The diagram below shows the arrangement of particles in substance X.

Antara yang berikut, yang manakah mungkin bahan X?
Which of the following might be substance X?

A Minyak
Oil

B Wap
Steam

C Madu
Honey

D Ais
Ice

6 Maklumat berikut menunjukkan tentang kadar resapan dalam tiga keadaan jirim.
The following information is about diffusion rate in three states of matter.

> Kadar resapan dalam pepejal, cecair dan gas adalah berbeza bergantung pada jarak di antara zarah-zarah dan kekuatan daya di antara zarah-zarah.
> *Diffusion rates in solids, liquids and gases are different depending on the distance between the particles and the strength of the force between the particles.*

Antara susunan berikut, yang manakah menunjukkan kadar resapan dalam urutan menaik?
Which of the following shows the rate of diffusion in ascending order?

A Pepejal, cecair, gas
Solid, liquid, gas

B Cecair, pepejal, gas
Liquid, solid, gas

C Pepejal, gas, cecair
Solid, gas, liquid

D Gas, cecair, pepejal
Gas, liquid, solid

7 Rajah di bawah menunjukkan ubat gegat.
The diagram below shows mothballs.

Saiz ubat gegat didapati semakin mengecil apabila dibiarkan terdedah kepada udara. Apakah proses perubahan jirim yang berlaku?
The size of the mothballs shrinks when left exposed to air. What is the process of change of matter that takes place?

A Peleburan
Melting

B Pembekuan
Freezing

C Pemejalwapan
Sublimation

D Kondensasi
Condensation

8 Antara yang berikut, yang manakah merupakan proses kondensasi?
Which of the following is the process of condensation?

A

B

C

D

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