

SENARAI SEMAK CALON
CANDIDATE CHECK LIST

SENARAI RADAS DAN BAHAN
LIST OF APPARATUS AND MATERIAL

ARAHAN

Anda dikehendaki menyemak semak radas dan bahan, membaca soalan dan merancang eksperimen dalam tempoh 5 minit yang pertama.

INSTRUCTION

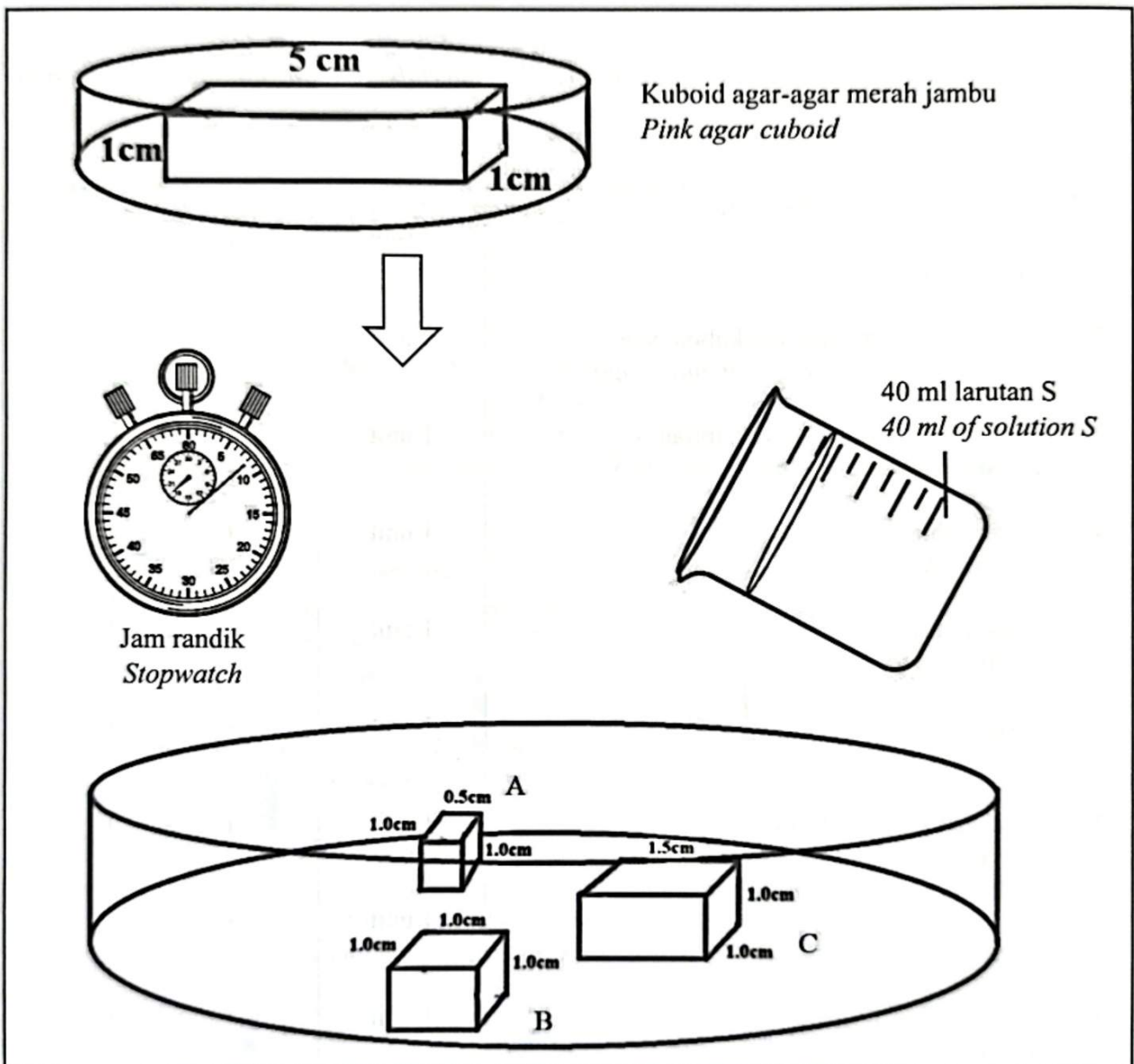
You are required to check the list of apparatus and materials, read the questions and plan the experiment in the first 5 minutes.

Bil	Radas / Bahan	Kuantiti	Ada (✓) / Tiada (X)
1	Piring petri <i>Petri dishes</i>	1 unit	()
2	Piring petri mengandungi kuboid agar <i>Petri dishes containing a cuboid of agar</i>	1 unit	()
3	Bikar mengandungi 40 ml larutan S <i>Beaker containing 40 ml of solution S</i>	1 unit	()
4	Jam randik <i>Stopwatch</i>	1 unit	()
5	Jubin putih <i>White tile</i>	1 unit	()
6	Pisau <i>Knife</i>	1 unit	()
7	Pembaris plastik 15 cm <i>15 cm plastic ruler</i>	1 unit	()
8	Rod kaca <i>Glass rod</i>	1 unit	()
9	Tisu/kain <i>Tissue/cloth</i>	1 unit	()

Soalan 1
Question 1

Anda dikehendaki menjalankan eksperimen untuk menyiasat hubungan di antara jumlah luas permukaan kepada isipadu agar-agar dengan kadar resapan.

You need to carry out an experiment to investigate the relationship between the total surface area per volume agar and the rate of diffusion.



Rajah 1
Diagram 1

Soalan

Question

- (a) Berdasarkan rajah 1, rancangkan eksperimen dengan menggunakan radas dan bahan yang dibekalkan. Prosedur anda hendaklah mengandungi:
- Cara mengendalikan pemboleh ubah dimanipulasi
 - Cara mengendalikan pemboleh ubah bergerak balas
 - Cara mengendalikan pemboleh ubah malar

Based on Diagram 1, plan your experiment by using the apparatus and materials provided. Your procedure should include:

- Method to handle the manipulated variables
- Method to handle the responding variables
- Method to handle the constant variables

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[4 markah/*marks*]

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- (b) (i) Rekod masa yang diambil untuk agar-agar berwarna berubah menjadi tanpa warna di dalam Jadual 1 yang disediakan.

Record the time taken for the coloured agar to turn colourless in Table 1 provided.

Agar - agar <i>Agar</i>	Jumlah luas permukaan kepada isipadu (cm^2) <i>Total surface area per volume (cm^2)</i>	Masa yang diambil untuk keseluruhan agar-agar berwarna bertukar menjadi tanpa warna (minit) <i>The time taken for the whole coloured agar to turn colourless (minute)</i>
A		
B		
C		

Jadual 1

Table 1

[6 markah/marks]

- (ii) Berdasarkan data di (b)(i), berikan inferens bagi pemerhatian terhadap agar-agar C.

Based on the data in (b)(i), give an inference for the observation of agar C.

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[1 markah/mark]

- (c) Nyatakan hipotesis bagi eksperimen ini.
State the hypothesis for this experiment.

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[2 markah/*marks*]

- (d) Nyatakan definisi secara operasi bagi **Resapan**.
*State the operational definition of **Diffusion***

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[2 markah/*marks*]

KERTAS PEPERIKSAAN TAMAT

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