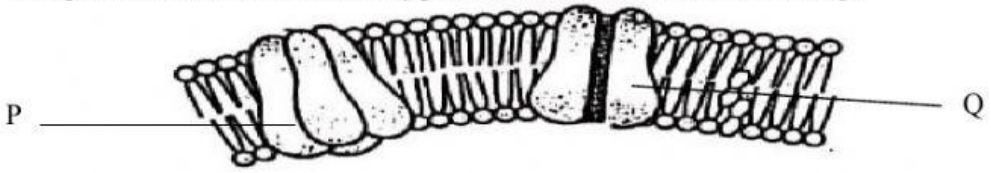
BIOLOGI KSSM TINGKATAN 4

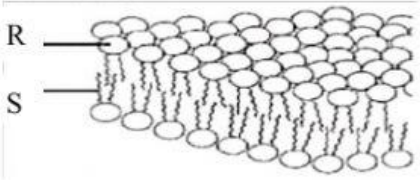
BAB 3: PERGERAKAN BAHAN MERENTASI MEMBRAN PLASMA (SET 1)

1 Rajah di bawah menunjukkan model membrane plasma. Apakah struktur P dan Q?
Diagram below shows a model of plasma membrane. What is P and Q?



	P	Q
A	Protein liang/ *Pore protein*	Fosfolipid/ *Phospholipid*
B	Protein pembawa/ *Carrier protein*	Fosfolipid/ *Phospholipid*
C	Protein pembawa/ *Carrier protein*	Protein liang/ *Pore protein*
D	Protein liang/ *Pore protein*	Protein pembawa/ *Carrier protein*

2 Rajah menunjukkan dwilapisan fosfolipid yang membentuk membran plasma. Apakah bahagian yang berlabel R dan S?
Diagram shows the phospholipid bilayer which forms the plasma membrane. What are the parts labeled R and S?



	R	S
A	Kepala lipofobik/ *Lipophobic head*	Ekor lipofilik/ *Lipophilic tail*
B	Kepala lipofilik/ *Lipophilic head*	Ekor lipofobik/ *Lipophobic tail*
C	Kepala hidrofilik/ *Hydrophilic head*	Ekor hidrofobik/ *Hydrophobic tail*
D	Kepala hidrofobik/ *Hydrophobic head*	Ekor hidrofilik/ *Hydrophilic tail*

3 Air suling meresap masuk ke dalam jalur ubi kentang dan meyebabkan pertambahan jisim. Apakah proses yang terlibat?
Distilled water diffuses into potato strip and causes it to increase in mass. What is the process involved?

A Resapan berbantu/ *Facilitated diffusion*
B Resapan ringkas/ *Simple diffusion*
C Pengangkutan aktif/ *Active transport*
D Osmosis

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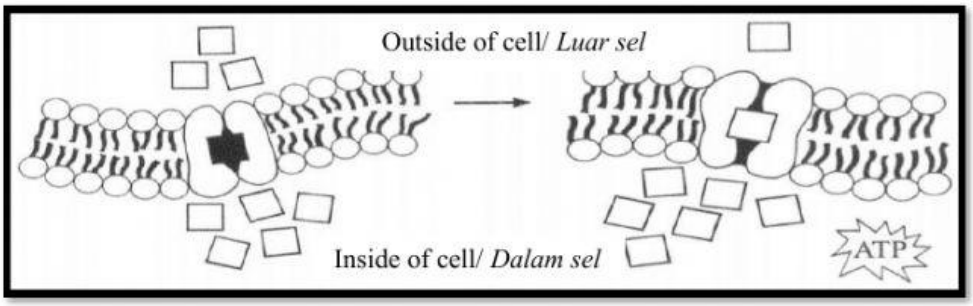
4 Rajah di bawah menunjukkan pergerakan bahan merentas membran plasma.
Diagram below shows the movement of substances across the plasma membrane.



Antara pernyataan-pernyataan berikut, yang manakah menerangkan pergerakan bahan?
Which of the following statements explains the movement of substances?

A Pergerakan bahan menuruni kecerunan kepekatan dengan bantuan protein liang.
Movement of substances going down the concentration gradient with the help of pore protein.

B Pergerakan bahan menentang kecerunan kepekatan dengan bantuan protein liang.
Movement of substances against the concentration gradient with the help of pore protein.

C Pergerakan bahan dari kawasan berkepekatan rendah ke kawasan berkepekatan tinggi dengan bantuan protein pembawa.
Movement of substances from the region of low concentration to the region of high concentration with the help of carrier protein.

D Pergerakan bahan dari kawasan berkepekatan tinggi ke kawasan berkepekatan rendah dengan bantuan protein pembawa.
Movement of substances from the region of high concentration to the region of low concentration with the help of carrier protein.

5 Apakah proses tersebut?/ *What is the process?*

- Pergerakan molekul atau ion/ *The movement of molecules or ions.*
- Memerlukan tenaga daripada ATP/ *Need energy that comes from ATP.*
- Menyebabkan pengumpulan atau penyingkiran molekul atau ion daripada sel
Results in the accumulation or elimination of molecules ions from the cells.

A Osmosis
B Resapan ringkas/ *Simple diffusion*
C Pengangkutan aktif/ *Active transport*
D Resapan berbantu/ *Facilitated diffusion*

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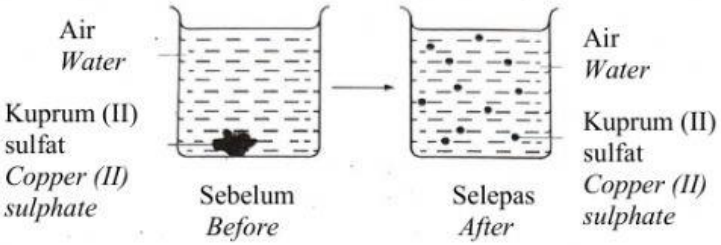
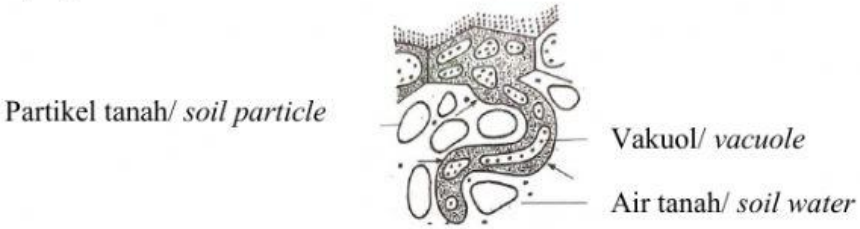
6 Namakan proses yang berlaku dalam eksperimen tersebut?
Name the process that occurs in the experiment?



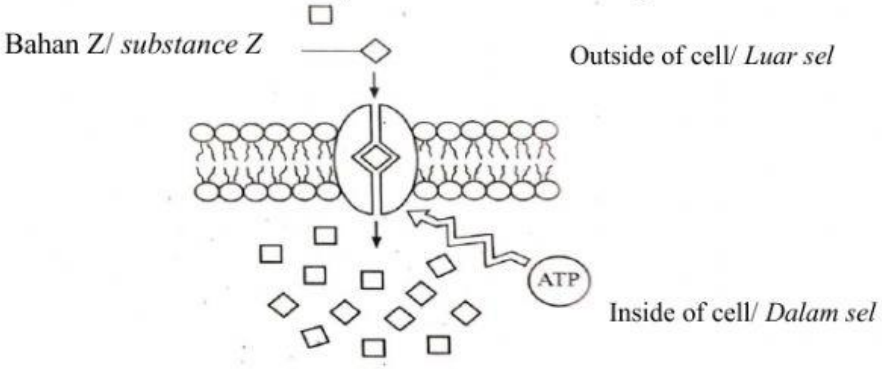
A Resapan ringkas/ *Simple diffusion*
B Osmosis
C Pengangkutan aktif/ *Active transport*
D Resapan berbantu/ *Facilitated diffusion*

7 Proses manakah yang terlibat dalam pergerakan molekul air dari tanah ke dalam akar rambut tumbuhan?
Which process is involved in the movement of water molecules from soil into the root hairs of a plant?



A Resapan berbantu/ *Facilitated diffusion*
B Resapan ringkas/ *Simple diffusion*
C Pengangkutan aktif/ *Active transport*
D Osmosis

8 Rajah di bawah menunjukkan pergerakan bahan Z merentas membran plasma.
Diagram below shows the movement of substance Z across the plasma membrane.



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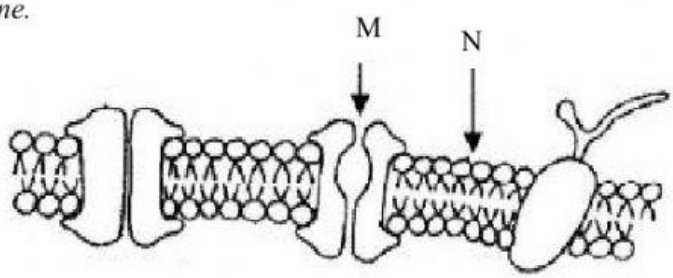
Antara berikut pernyataan yang manakah benar tentang pergerakan bahan Z?
Which of the following statements are correct about the movement of substance Z?

I Melalui protein liang/ *Across pore protein.*
II Menggunakan pengangkutan aktif./*Using active transport*
III Tidak memerlukan tenaga/ *Does not require energy.*
IV Melawan kecerunan kepekatan./*Against concentration gradient.*

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

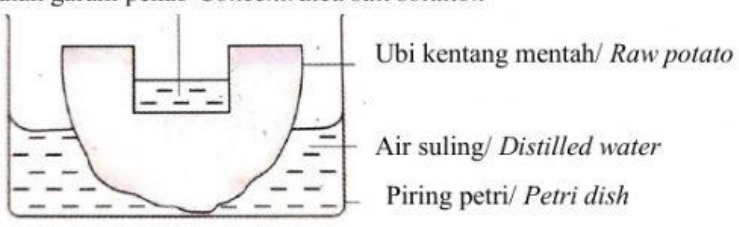
9 Rajah di bawah menunjukkan pergerakan dua bahan iaitu M dan N merentas membran plasma.
Diagram below shows the movement of two substances which is M and N across the plasma membrane.



Apakah bahan M dan N?/ *What are substances M and N?*

	M	N
A	Ion kalsium/ *Calcium ion*	Glukosa/ *Glucose*
B	Oksigen/ *Oxygen*	Asid amino/ *Amino acid*
C	Ion kalsium/ *Calcium ion*	Asid amino/ *Amino acid*
D	Glukosa/ *Glucose*	Oksigen/ *Oxygen*

10 Rajah di bawah menunjukkan pergerakan dua bahan iaitu M dan N merentas membran plasma.
Diagram below shows the movement of two substances which is M and N across the plasma membrane.



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Apakah pemerhatian selepas 30 minit?/*What is the observation after 30 minutes?*.

A Aras air dalam piring petri itu menurun.
The level of water in the petri dish decreases.

B Aras air dalam piring petri itu meningkat.
The level of water in the petri dish increases.

C Aras larutan garam dalam ubi kentang itu menurun.
The level of salt solution in the potato decreases.

D Aras larutan garam dalam ubi kentang itu kekal sama.
The level of salt solution in the potato remains the same.

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