

## BIOLOGI KSSM TINGKATAN 4

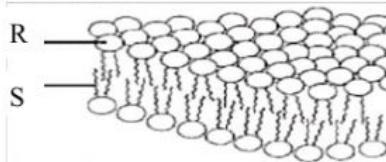
### BAB 3: PERGERAKAN BAHAN MERENTASI MEMBRAN PLASMA (SET 1)

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



	P	Q
A	Protein liang/ <i>Pore protein</i>	Fosfolipid/ <i>Phospholipid</i>
B	Protein pembawa/ <i>Carrier protein</i>	Fosfolipid/ <i>Phospholipid</i>
C	Protein pembawa/ <i>Carrier protein</i>	Protein liang/ <i>Pore protein</i>
D	Protein liang/ <i>Pore protein</i>	Protein pembawa/ <i>Carrier protein</i>

- 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?*



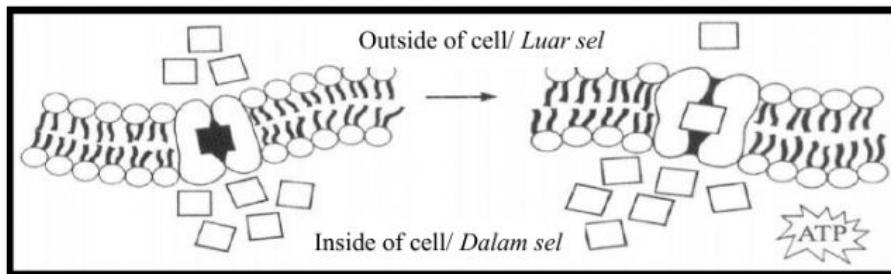
	R	S
A	Kepala lipofobik/ <i>Lipophobic head</i>	Ekor lipofilik/ <i>Lipophilic tail</i>
B	Kepala lipofilik/ <i>Lipophilic head</i>	Ekor lipofobik/ <i>Lipophobic tail</i>
C	Kepala hidrofilik/ <i>Hydrophilic head</i>	Ekor hidrofobik/ <i>Hydrophobic tail</i>
D	Kepala hidrofobik/ <i>Hydrophobic head</i>	Ekor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

- 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

- 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?*

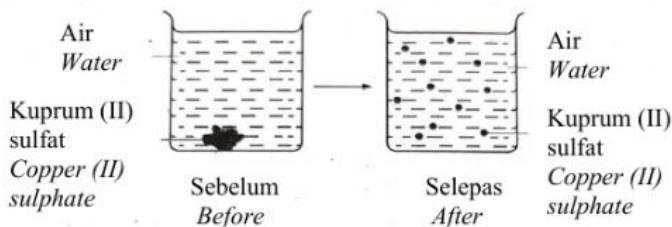
- A Pergerakan bahan menuruni kecerunan kepekatan dengan bantuan protein liang.  
*Movement of substances going down the concentration gradient with the help of pore protein.*
- B Pergerakan bahan menentang kecerunan kepekatan dengan bantuan protein liang.  
*Movement of substances against the concentration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

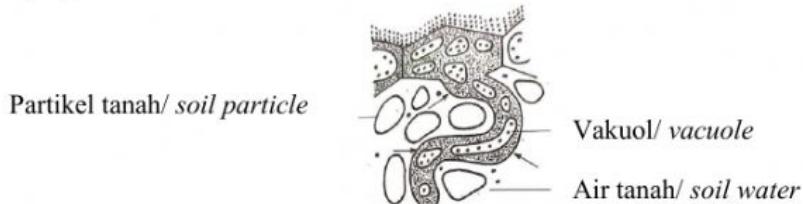
- 6 Namakan proses yang berlaku dalam eksperimen tersebut?  
*Name the process that occurs in the experiment?*



- 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?

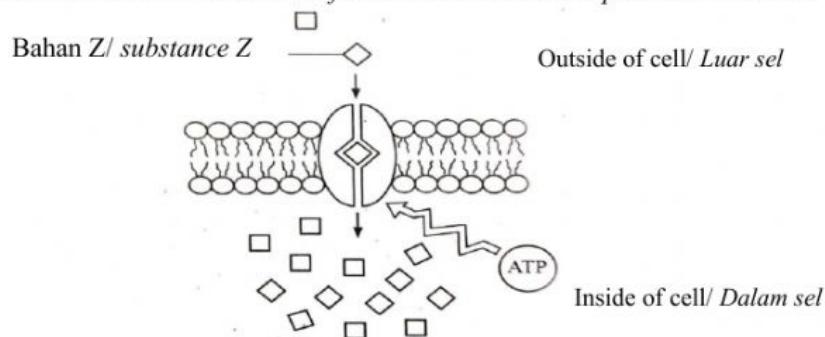
*Which process is involved in the movement of water molecules from soil into the root hairs of a plant?*



- 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.*

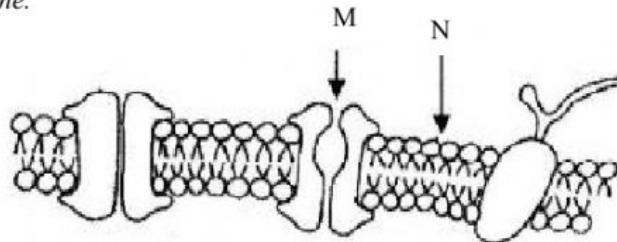


Antara berikut pernyataan yang manakah benar tentang pergerakan bahan Z?  
Which of the following statements are correct about the movement of substance Z?

- 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.

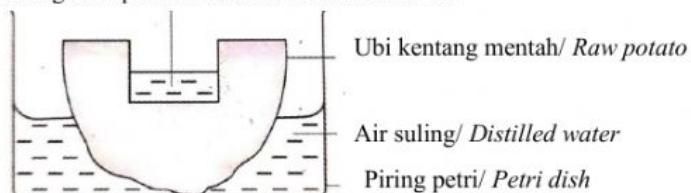


Apakah bahan M dan N?/ What are substances M and N?

	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. Larutan garam pekat/ Concentrated salt solution



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.*