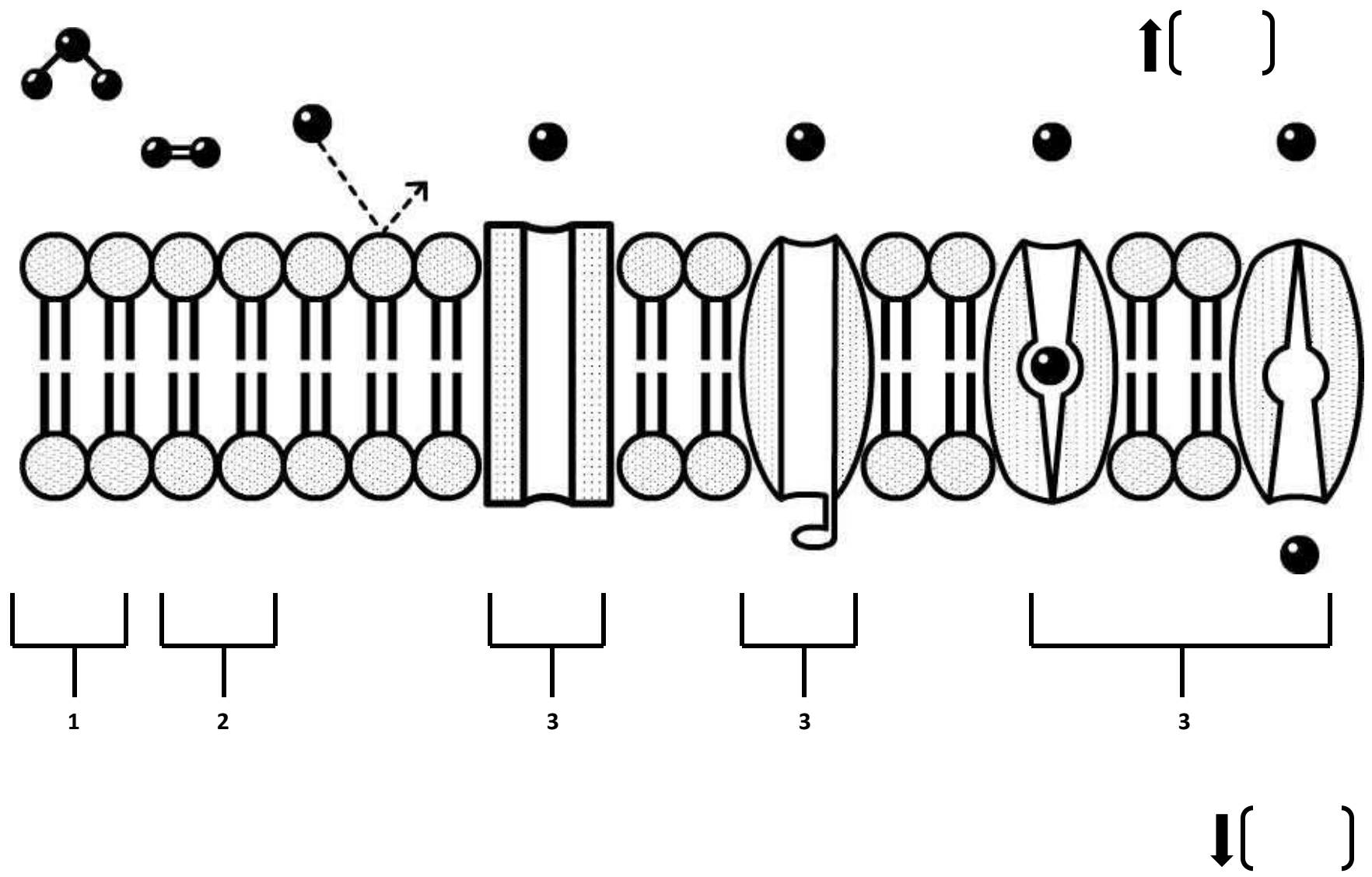
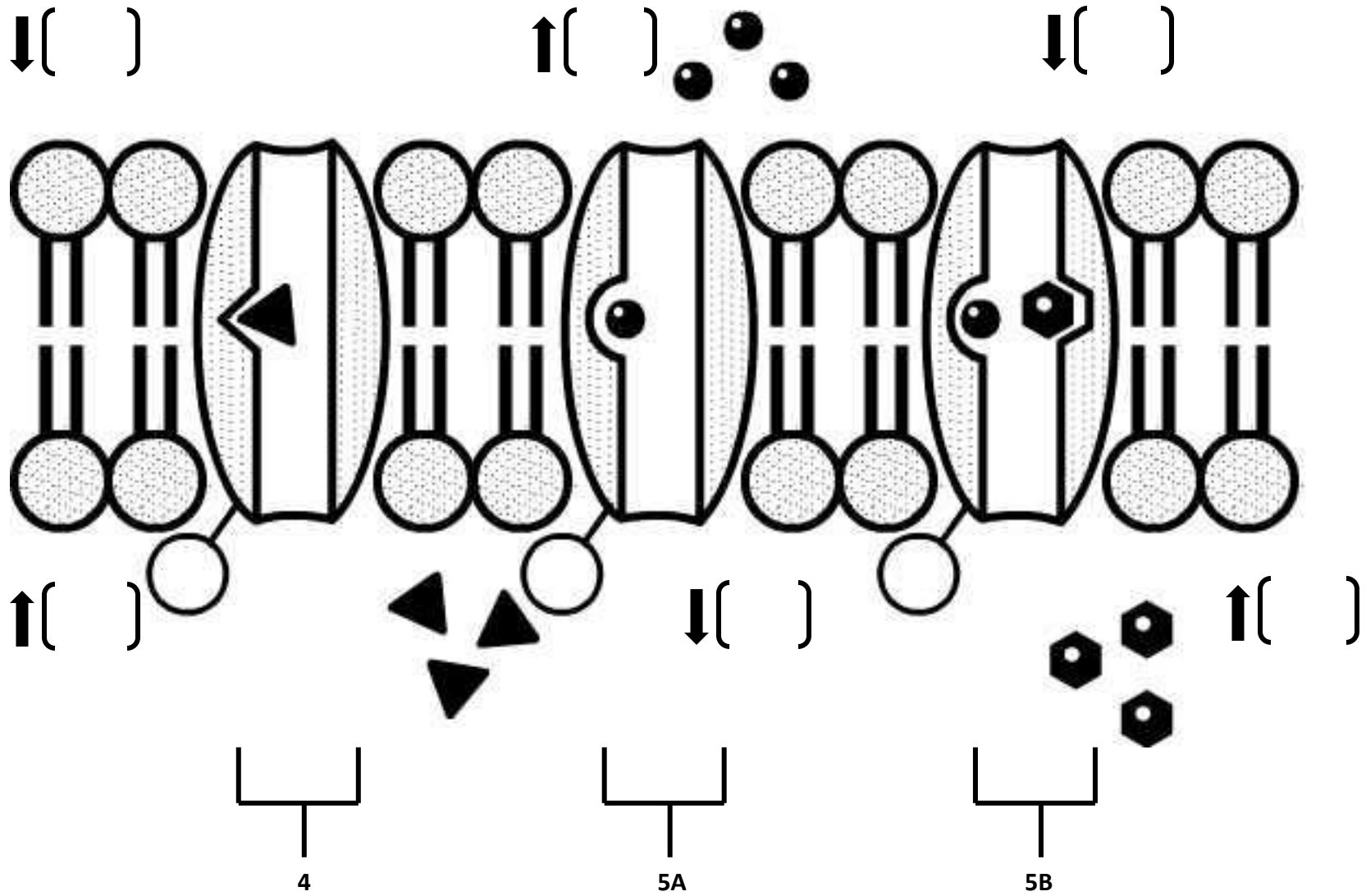


PASSIVE TRANSPORT: (1) Osmosis (2) Simple Diffusion (3) Facilitated Diffusion

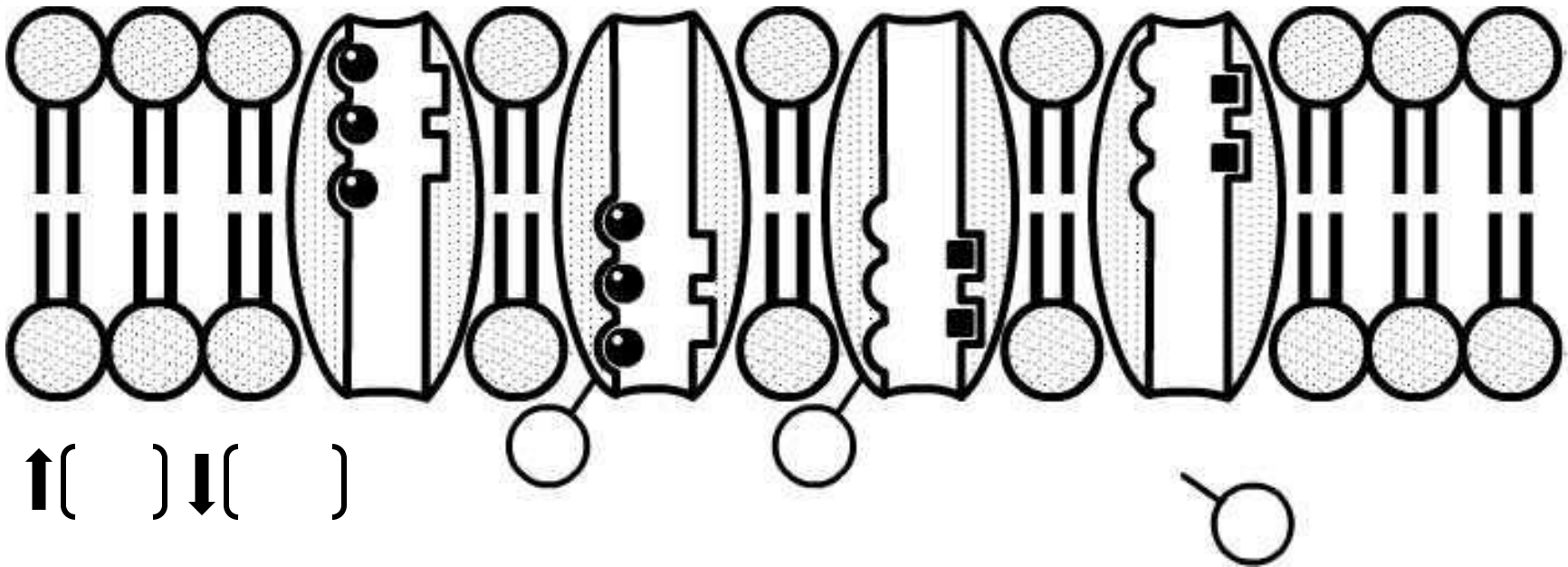


ACTIVE TRANSPORT: (4) H⁺ Pump (Uniport) (5) Na⁺/Glucose Coupled Channel (Co-transport, Symport)



ACTIVE TRANSPORT: (6) Na⁺/K⁺ Pump (Co-transport, Antiport)

↑ () ↓ ()



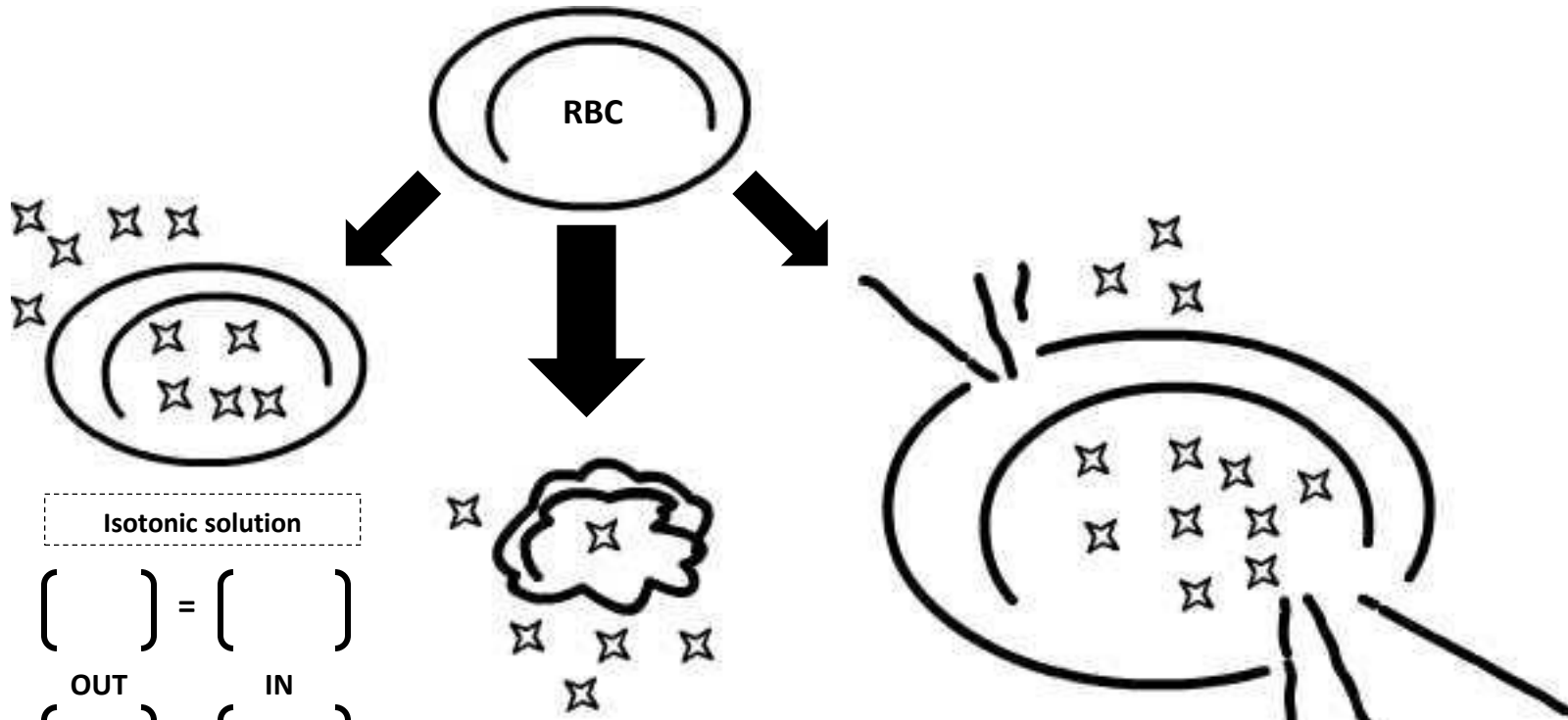
6A

6B

6C

6D

TONICITY: Refers to the concentration of solute in the solution



Isotonic solution

$$\left(\begin{array}{c} \text{OUT} \\ \text{IN} \end{array} \right) = \left(\begin{array}{c} \text{IN} \\ \text{OUT} \end{array} \right)$$

Hypertonic solution

$$\begin{array}{cc} \uparrow \left(\begin{array}{c} \text{OUT} \\ \text{IN} \end{array} \right) & \downarrow \left(\begin{array}{c} \text{IN} \\ \text{OUT} \end{array} \right) \\ \downarrow \left(\begin{array}{c} \text{OUT} \\ \text{IN} \end{array} \right) & \uparrow \left(\begin{array}{c} \text{IN} \\ \text{OUT} \end{array} \right) \end{array}$$

Hypotonic solution

$$\begin{array}{cc} \uparrow \left(\begin{array}{c} \text{OUT} \\ \text{IN} \end{array} \right) & \downarrow \left(\begin{array}{c} \text{IN} \\ \text{OUT} \end{array} \right) \\ \downarrow \left(\begin{array}{c} \text{OUT} \\ \text{IN} \end{array} \right) & \uparrow \left(\begin{array}{c} \text{IN} \\ \text{OUT} \end{array} \right) \end{array}$$