

## CELL TRANSPORT

Match the definition on the left with the term on the right. (2 marks)

1. c release of wastes or cell products from inside to outside a cell
2. d diffusion of water molecules through a selectively permeable membrane
3. b continuous movement of particles but no overall change in concentration
4. a movement of particles from an area of higher concentration to one of lower concentration

- |                        |
|------------------------|
| a. diffusion           |
| b. dynamic equilibrium |
| c. exocytosis          |
| d. osmosis             |

In the space at the left, write true if the statement is true. If the statement is false, change the italicized term to make the statement true. Write this answer in the blank provided. (3 marks)

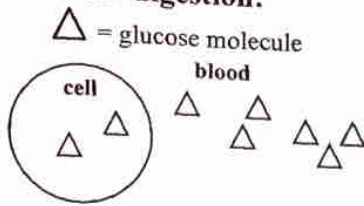
- False 5. In ~~passive~~ <sup>active</sup> transport, the movement of particles across a membrane requires energy.
- True 6. *Endocytosis* is a process by which a cell membrane surrounds and takes in material from the environment.
- True 7. A membrane that allows only some materials to pass through shows *selective permeability*.

Hi-lite or circle the word or phrase that best completes the statement or answers the question. (3 marks)

8. The structure most responsible for maintaining cell *homeostasis* is the  
cytoplasm                      cell wall                      mitochondria                      cell membrane
9. A cell membrane is made up of a(n)  
cholesterol layer                      enzyme layer                      lipid bilayer                      protein layer
10. Which of the following is not a form of passive transport?  
diffusion                      endocytosis                      osmosis
11. Diffusion continues until  
equilibrium is reached                      turgor pressure is reached                      one side has more
12. If a cell is placed in salt water, water leaves the cell by  
osmosis                      diffusion                      active transport                      phagocytosis
13. A cell moves particles from a region of lesser concentration to a region of higher concentration by  
diffusion                      osmosis                      passive transport                      active transport

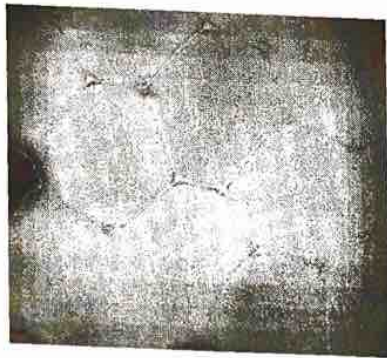
Use the pictures on the left to answer the questions on the right. (2 marks)

14. After digestion:



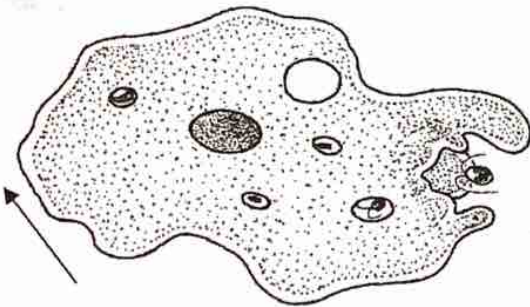
- Which side has the higher concentration of glucose? blood
- Which way will the glucose go? into cell
- Does this require energy? no
- Is this active or passive transport? passive

15. Plant cell after being over-watered. (1 mark)



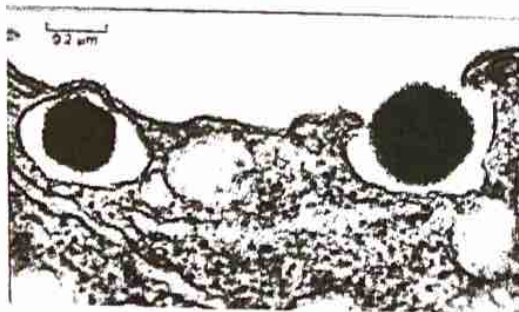
- Water rushes into the plant cell's vacuole. Is this diffusion or osmosis? Why? osmosis, water is moving

16. An amoeba engulfs a particle of food. (1.5 marks)



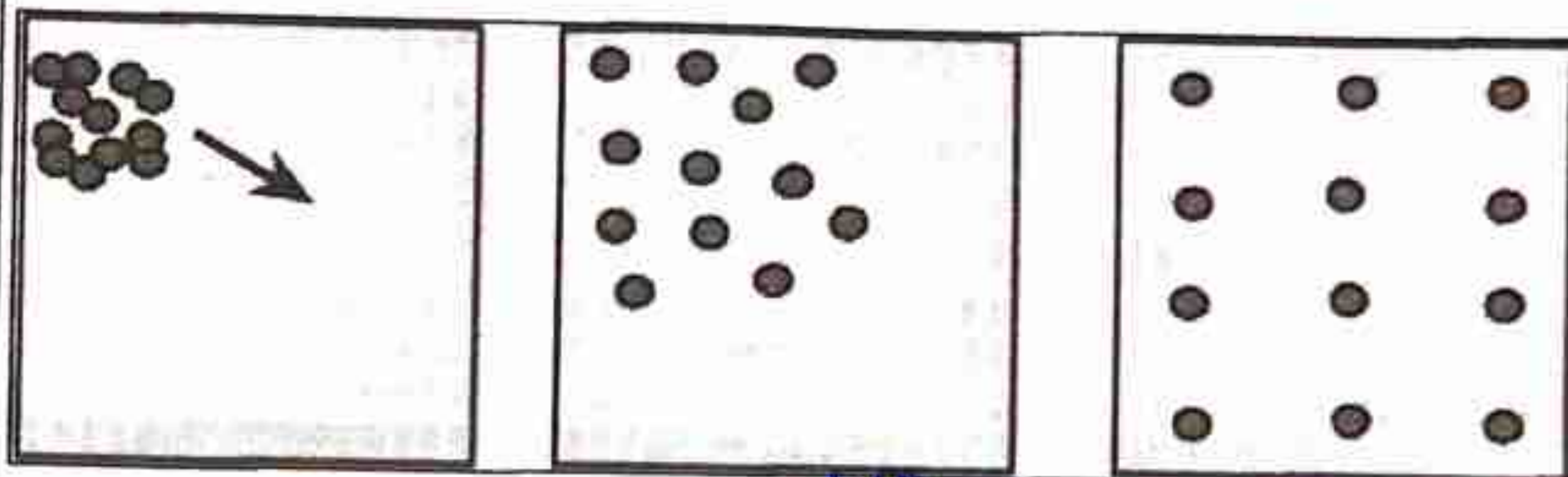
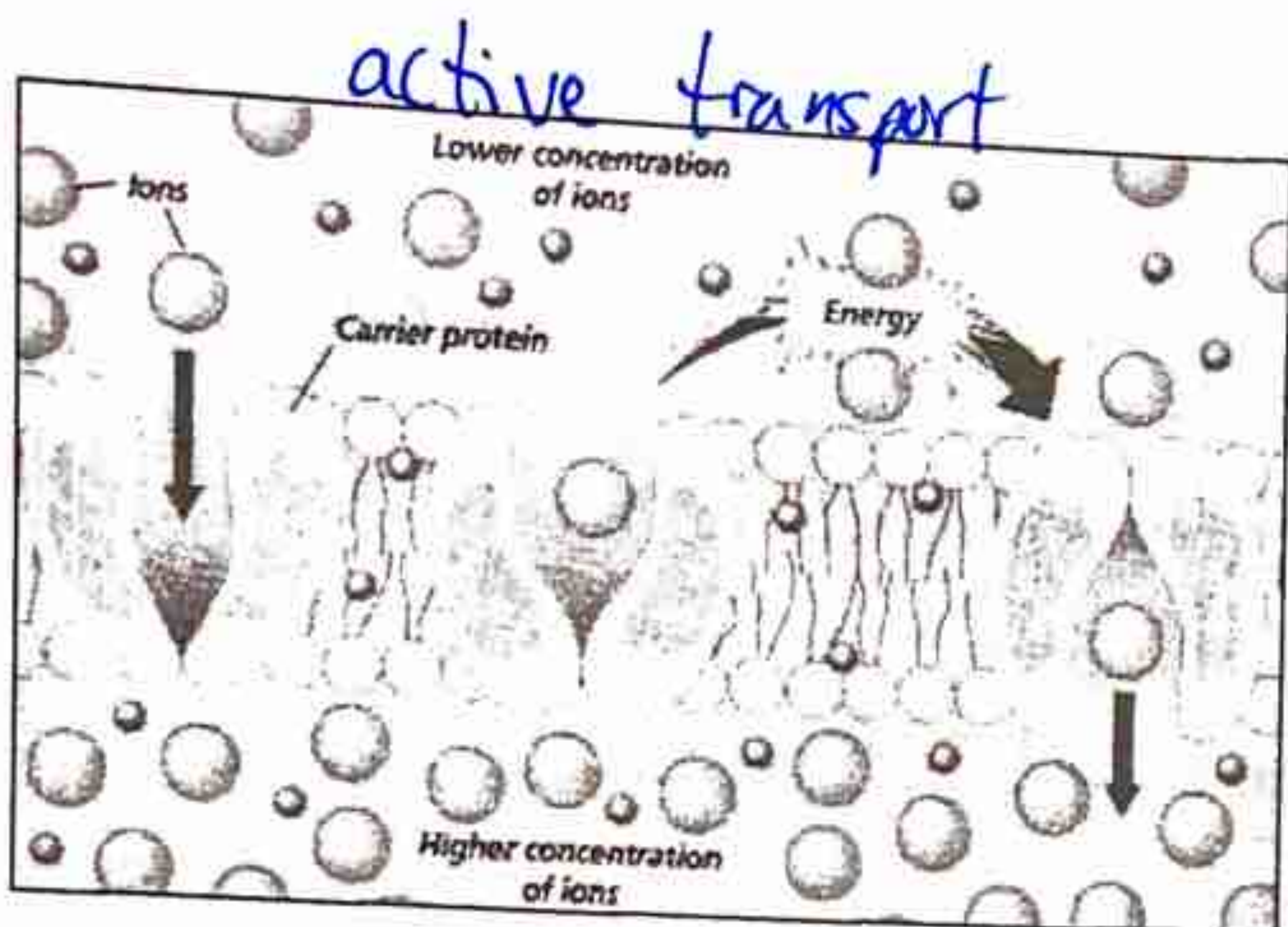
- Does this require energy? yes
- Is this active or passive transport? active
- Is this endocytosis or exocytosis? endocytosis

19. An amoeba expels waste. (1.5 marks)

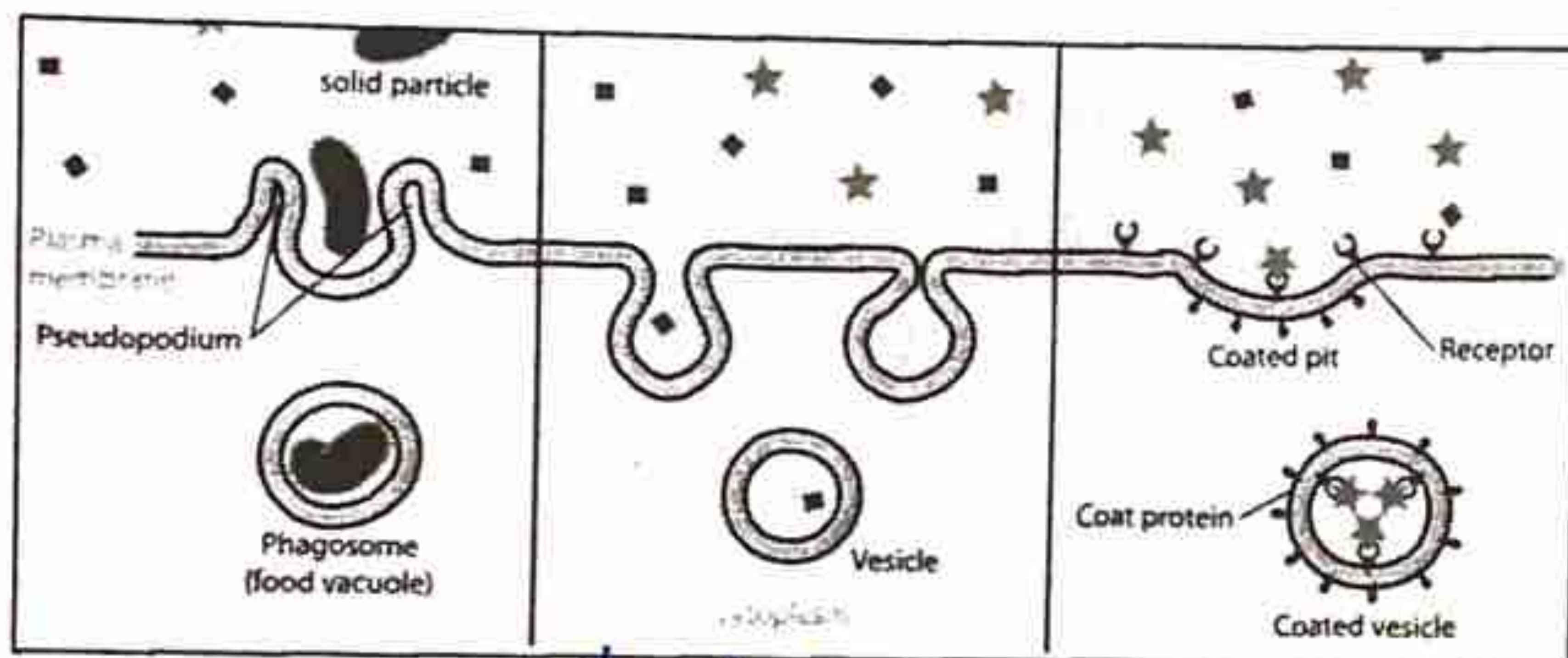


- Does this require energy? yes
- Is this active or passive transport? active
- Is this endocytosis or exocytosis? exocytosis

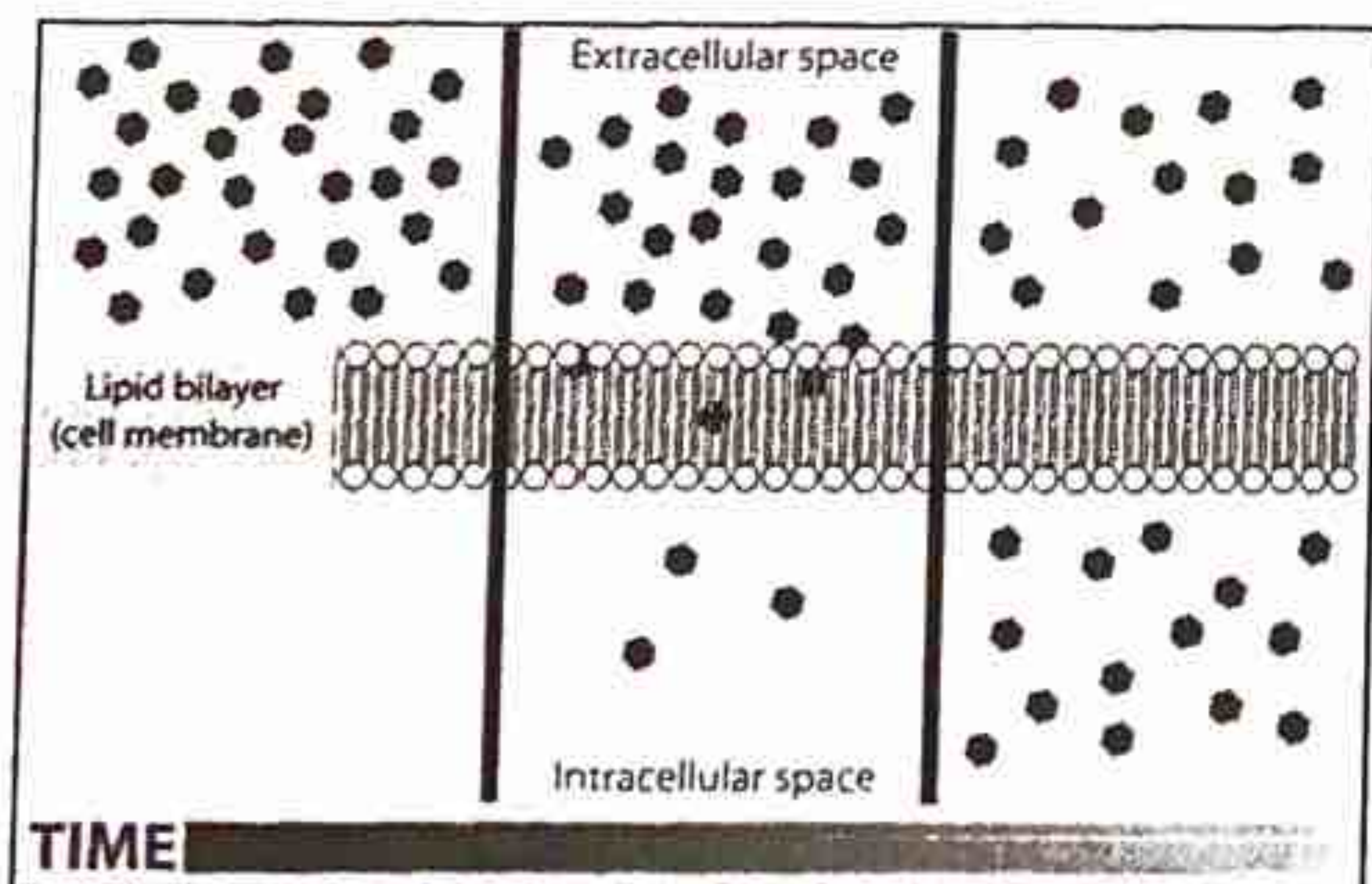
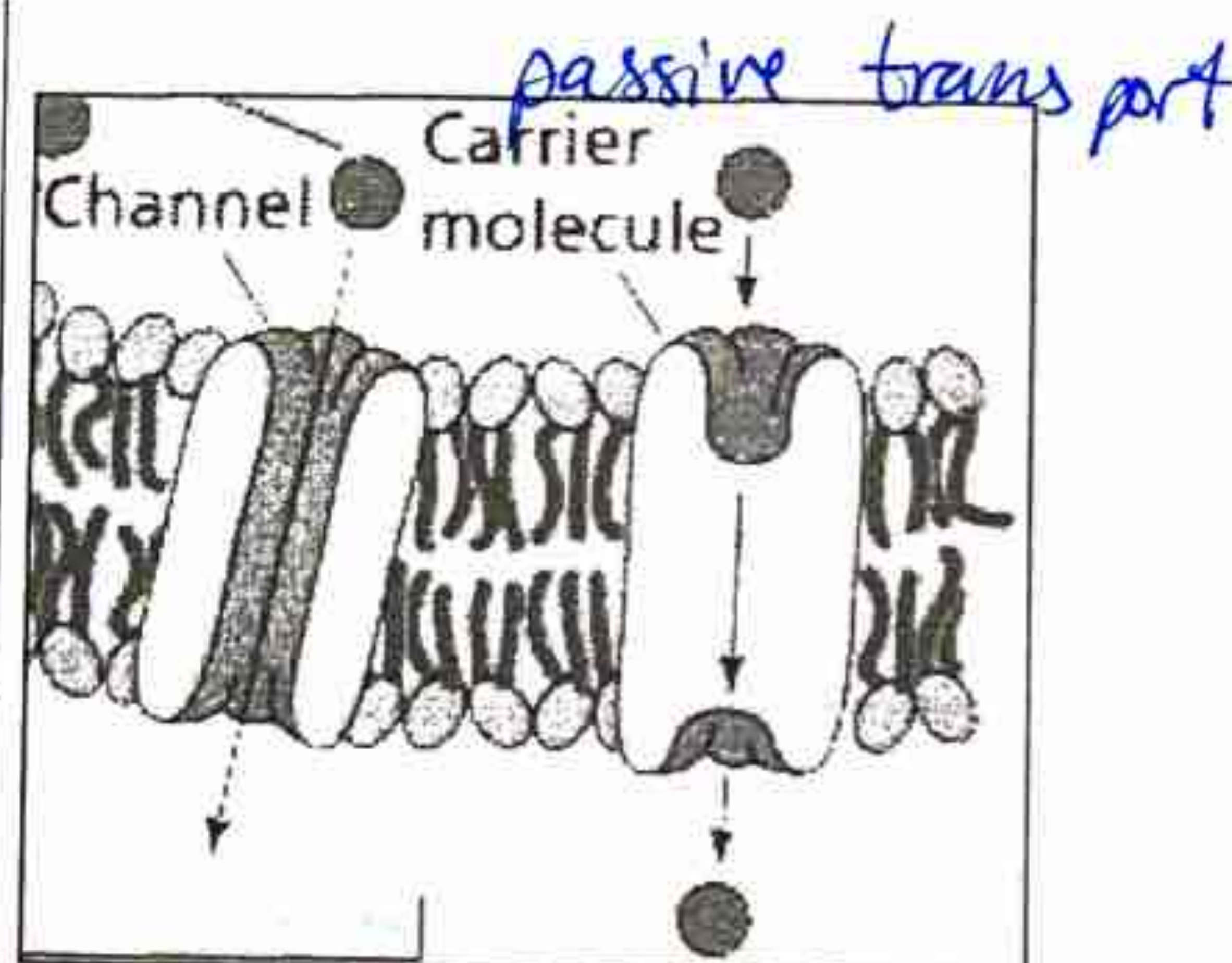
20. Identify each image as: diffusion, osmosis, passive transport, active transport, exocytosis or endocytosis. (3 marks)



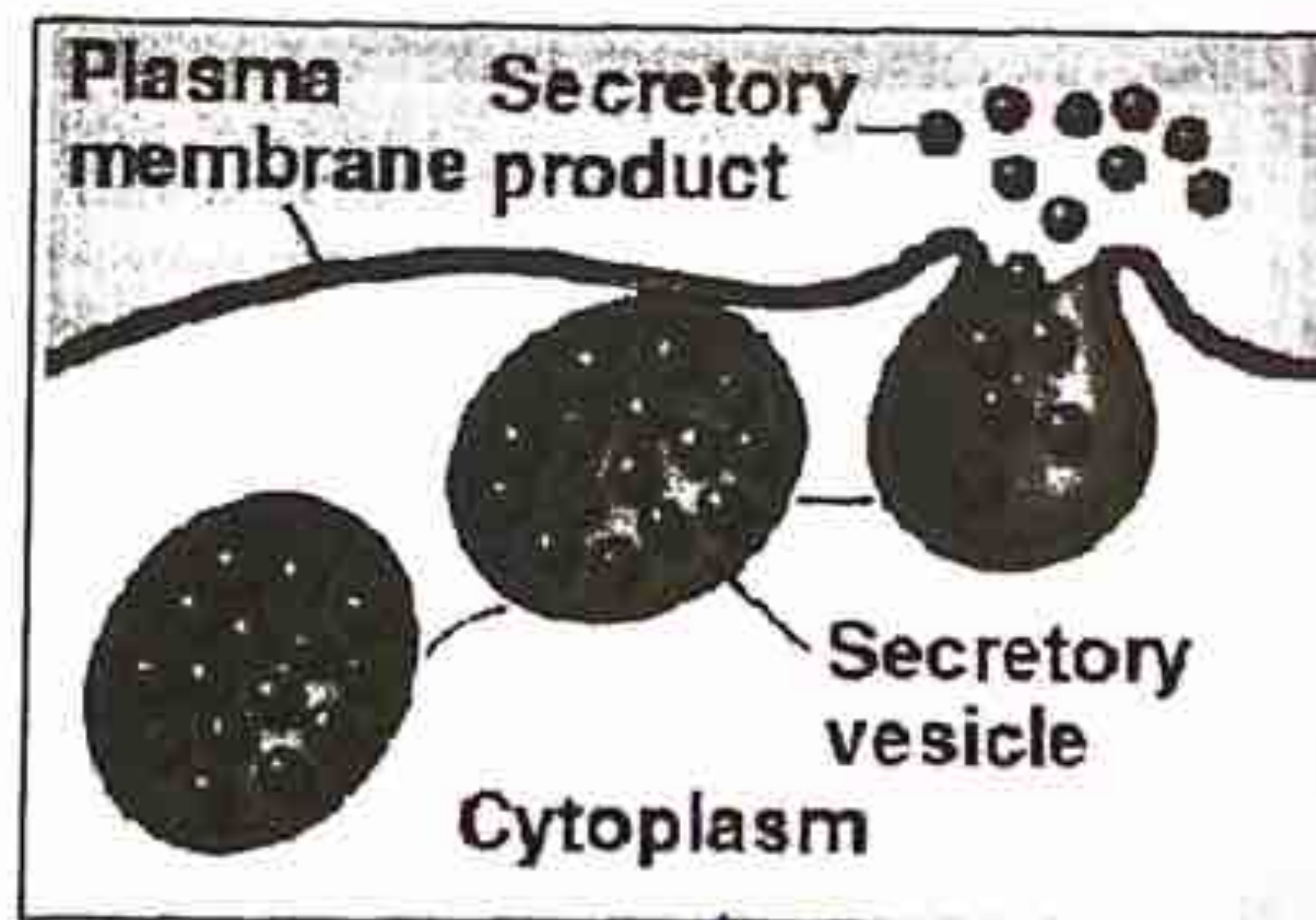
*diffusion*



*endocytosis*



*osmosis*



*exocytosis*

(Each statement is worth 1/2 a mark, for a total of 11 marks)

21. Describe **diffusion**:

- Moves things into/out of the cell (circle one or both!)
- Moves with/against concentration gradient (circle one)
- For large/small molecules (circle one or both!)
- Uses does not use protein doorway (circle one) *\*facilitated diffusion does!*

22. Describe **osmosis**:

- Moves things into/out of the cell (circle one or both!)
- Moves with/against concentration gradient (circle one)
- For large/small molecules (circle one or both!) *water is a small particle*
- Uses does not use protein doorway (circle one)

23. Describe **passive transport**: *\*think facilitated diffusion here*

- Moves things into/out of the cell (circle one or both!)
- Moves with/against concentration gradient (circle one)
- For large/small molecules (circle one or both!)
- Uses/does not use protein doorway (circle one)

24. Describe **active transport**:

- Moves things into/out of the cell (circle one or both!)
- Moves with/against concentration gradient (circle one)
- For large/small molecules (circle one or both!)
- Uses/does not use protein doorway (circle one)

25. Describe **endocytosis**:

- Example of active/passive (circle one)
- Moves things into/out of the cell (circle one or both!)
- For large/small molecules (circle one or both!) *\*phagocytosis is large  
pinocytosis is small*

26. Describe **exocytosis**:

- Example of active/passive (circle one)
- Moves things into/out of the cell (circle one or both!)
- For large/small molecules (circle one or both!)