



Final term Exam

Department: Zoology
Time: 1 Hour
Date: 01/01/2026

Major:
Zoology/chemistry
second year students

Course Title: Cell Physiology
Code number: 211 Z
Mark: 35

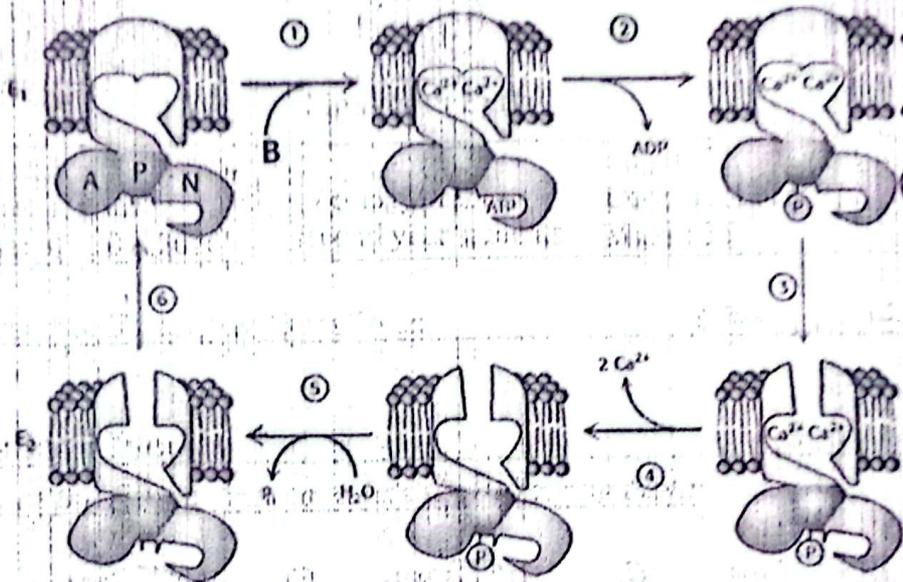
Answer the Following Questions:

الامتحان في صفتين

Question One:

(15 marks)

Look at the figure then complete the following table:



- 1 The main structure in the figure is: _____
- 2 its role in cell function is: _____
- 3 1 to 6 are steps of: _____
- 4 (E1) in the figure stands for: _____
- 5 (E2) in the figure stands for: _____
- 6 (A) in the figure stands for: _____
- 7 (P) in the figure stands for: _____
- 8 (N) in the figure stands for: _____
- 9 (B) in the figure stands for: _____
- 10 Step (1) in the figure stands for: _____
- 11 Step (2) in the figure stands for: _____
- 12 Step (3) in the figure stands for: _____
- 13 Step (4) in the figure stands for: _____
- 14 Step (5) in the figure stands for: _____
- 15 Step (6) in the figure stands for: _____

Question Two:

(10 marks)

- To what category of membrane diffusion belongs the exchange transporters?
- In what characteristics does this diffusion type resemble active transport?
- Give example for exchange transporters with the mechanism of action.

Question Three:

(10 marks)

Write short notes on the following:

1. Types of co-transporters?
2. Common types of biological membrane lipids.

Best Wishes
Prof. Ayman Hyder