

1.3 Cells: Membrane Structure & Transport

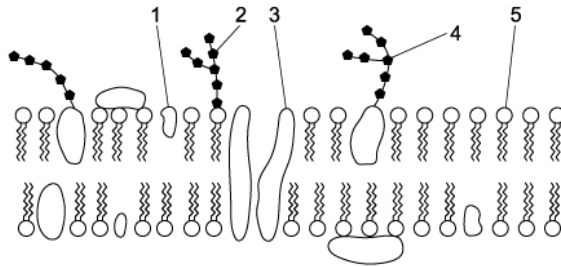
Question Paper

Course	DP IB Biology
Section	1. Cell Biology
Topic	1.3 Cells: Membrane Structure & Transport
Difficulty	Easy

Time allowed: 10
Score: /5
Percentage: /100

Question 1

Which row correctly labels this diagram of a cell surface membrane?



	Cholesterol	Glycoprotein	Glycolipid	Protein	Phospholipid
A.	3	2	4	1	5
B.	5	3	2	4	1
C.	1	4	2	3	5
D.	5	2	4	3	1

[1 mark]

Question 2

What is the main function of cholesterol in the cell surface membrane?

- A. To provide hydrophilic channels.
- B. To regulate membrane fluidity.
- C. To assist active transport.
- D. To assist cell adhesion.

[1 mark]

Question 3

Which of the following correctly describes the model of membrane structure that is now widely accepted?

- A. A phospholipid bilayer with a series of proteins that are free to move around within the membrane.
- B. A phospholipid bilayer.
- C. A phospholipid bilayer with a layer of protein on either side.
- D. A phospholipid bilayer with a series of proteins in fixed positions throughout.

[1 mark]

Question 4

Which of the statements about membrane fluidity is correct?

- A. The higher the proportion of unsaturated fatty acid tails in a membrane, the higher the membrane fluidity.
- B. Cholesterol can restrict the motion of the molecules in a membrane, increasing membrane fluidity.
- C. Cells do not need to regulate membrane fluidity.
- D. The lower the proportion of unsaturated fatty acid tails in a membrane, the higher the membrane fluidity.

[1 mark]

Question 5

Which of the following modes of transport is **not** an example of active or bulk transport?

- A. Water moving through a partially permeable membrane.
- B. Phagocytosis of a pathogen.
- C. Exocytosis.
- D. Endocytosis.

[1 mark]