BIOLOGY
Worksheet

LW13 - ACTIVE TRANSPORT & BULK TRANSPORT

Q1) Active transport is a method of transporting molecules between cells and their environments .

a) Define active transport.

[3 marks]

b) Which of the two following statements are incorrect?

A Active transport happens down the concentration gradient ⬭

B ATP is hydrolysed to ADP to provide energy for active transport ⬭

C Active transport happens against the concentration gradient ⬭

D ADP is hydrolysed to ATP to provide energy for active transport ⬭

[2 marks]

c) Give two differences between active transport and simple diffusion, excluding energy.

[4 marks]

Q2) Active transport requires energy to transport molecules via carrier proteins.

a) Why do carrier proteins require energy?

[1 mark]

b) Explain how energy is provided to carrier proteins in active transport?

[2 marks]

c) Describe how glucose may be transported across the membrane via active transport?

[3 marks]

Q3) Bulk transport methods, such as endocytosis and exocytosis, are used to transport certain substances.

a) Explain why bulk transport is required?

[2 marks]

b) Why is energy required?

[1 mark]

c) What is endocytosis?

[1 mark]

d) Explain how endocytosis transports substances?

[4 marks]

Q4) Endocytosis and exocytosis are very similar processes as they both transport large substances.

a) Give one difference between the two.

[2 marks]

b) Explain how exocytosis transports substances

[2 marks]

c) Which of the following statements is correct?

A Phagocytosis is the exocytosis of solids ⬭

B Cytoskeleton is required in bulk transport ⬭

C Pinocytosis is the exocytosis of liquids ⬭

D Cholesterol is required in bulk transport ⬭

[1 mark]

[TOTAL 27 MARKS]