Chapter 2

Multiple Choice Questions – Answers

1. The movement of molecules from an area of high concentration to an area of lower concentration is known as:
   A  Osmosis
   B  Diffusion [True]
   C  Active Transport
   D  Phagocytosis

   The correct answer is B. Diffusion occurs when molecules move from an area of high concentration to low concentration. For example: imagine making a glass of juice and adding the juice to the water. The juice spreads through the water from the area where it was poured in until the concentration is equal across the glass of juice.

2. The movement of water molecules from an area of high concentration to an area of low concentration through a semipermeable membrane is known as:
   A  Active Transport
   B  Diffusion
   C  Phagocytosis
   D  Osmosis [True]

   The correct answer is A. Osmosis is the movement of water across a semipermeable membrane such as a cell membrane. For example: imagine dropping a cell containing a high amount of sugar into a glass of coloured water. Osmosis will cause the water to be transported through the membrane of the cell to dilute the concentration of sugar in the cell until the concentration of water is equal across the semipermeable membrane.

3. The movement of molecules from an area of low concentration to an area of high concentration against the concentration gradient is known as:
   A  Active Transport [True]
   B  Osmosis
   C  Diffusion

   The correct answer is A. Active transport requires energy to move molecules from an area of low concentration to an area of high concentration.
4. Identify the process that requires energy in order to take place:
   A  Osmosis
   B  Diffusion
   C  Active Transport [True]

   The correct answer is C. Active transport requires energy to move molecules from an area of low concentration to an area of high concentration unlike osmosis and diffusion where molecules move from areas of high concentration to areas of low concentration.

5. Essential salts dissolved in body fluids are known as:
   A  Phagocytes
   B  Erythrocytes
   C  Electrolytes [True]
   D  Podocytes

   The correct answer is C. The other options are all types of cell that can be found in the body. Electrolytes are mineral salts that are dissolved in body fluids and that are lost through processes such as urination and sweating. Electrolytes balance can be affected by some illnesses, and so electrolytes may need replacing or diluting in their concentration.

6. The system of the body that acts to collect tissue fluid that is not absorbed directly back into the bloodstream is:
   A  Digestive system
   B  Respiratory system
   C  Endocrine system
   D  Lymphatic system [True]

   The correct answer is D. The lymphatic system is found throughout the body and acts to collect fluid.