

PiXL6 Challenge Quiz 2 – A Level Biology

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Name :

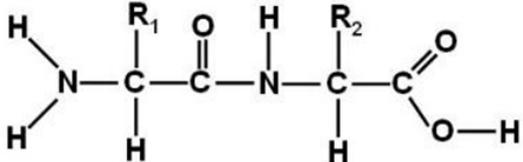
Score: /20

INSTRUCTION

- Read the question carefully.
 - Circle the correct letter.
 - Answer all questions
-

1. What will happen to an animal cell placed in a salt water solution?
 - a. the cell will expand
 - b. the cell will shrink
 - c. the cell will burst
 - d. the cell will divide
2. Fatty acids that are unsaturated have
 - a. an amino group
 - b. a double bond
 - c. an excess of protons
 - d. a carboxyl group
3. The cohesion of water is caused by:
 - a. hydrogen bonds
 - b. hydrophobic compounds
 - c. ionic bonds
 - d. covalent bonds
4. Enzymes are specific. This means:
 - a. the substrate has a specific active site the enzyme will bind to
 - b. the enzyme has an active site and only one specific substrate can bind
 - c. the substrate and enzyme have an active site which bind together
 - d. only one specific substrate will bind to an enzyme at a time
5. The main component of a biological membrane is a phospholipid bilayer. This is formed due to:
 - a. hydrophobic heads of the phospholipid bilayer facing inwards
 - b. hydrophilic heads of the phospholipid bilayer facing inwards
 - c. hydrophobic tails of the phospholipid bilayer facing inwards
 - d. hydrophilic tails of the phospholipid bilayer facing outwards

11. As a cell gets larger:
- the surface area to volume ratio increases
 - diffusion of materials stops
 - the surface area to volume ratio decreases
 - osmosis stops
12. Facilitated diffusion is **best** described as:
- the passive movement of molecules from an area of higher to lower concentration
 - a form of diffusion which is helped by carrier or channel proteins
 - the movement of water from an area of higher water potential to an area of lower water potential across a partially permeable membrane
 - the active movement of molecules against a concentration gradient
13. In an open circulatory system:
- blood is pumped at high pressure around the body in a continuous system of vessels
 - exchange of materials takes place across thin walled capillaries
 - blood empties into a series of body cavities and bathes surrounding cells
 - blood is forced back into the heart when the pressure in the arteries increases
14. During ventricular systole:
- the AV valves and the semi-lunar valves are open; the volume of the ventricles decrease
 - the AV valves are open and the semi-lunar valves are shut; the volume of the ventricles increase
 - the AV valves are shut and the semi-lunar valves are open; the volume of the ventricles decrease
 - the AV valves are shut and the semi-lunar valves are open; the volume of the ventricles increase

15.  Two amino acids join to form a dipeptide. The bond that is formed is a:
- peptide bond
 - phosphodiester bond
 - glycosidic bond
 - hydrogen bond

16. Translocation is the movement of organic molecules through the phloem of plants. The **best** description of this is:
- passive diffusion down the phloem
 - an active process caused by a hydrostatic pressure gradient
 - active transport down the phloem

- d. a passive process caused by a hydrostatic pressure gradient
17. Which statement about water movement in a plant is **NOT** correct?
- a. water evaporates from the mesophyll cells in the sub-stomatal space
 - b. cohesion causes water to fill the xylem and maintains a continuous column
 - c. tension created by transpiration is only effective because of the cohesive property of water
 - d. water molecules are cohesive due to covalent bonding
18. Breathing in (inspiration) is made possible by:
- a. external intercostal muscle contracting; diaphragm contracting
 - b. internal intercostal muscles contracting; diaphragm contracting
 - c. internal intercostal muscles contracting; diaphragm relaxing
 - d. external intercostal muscles contracting; diaphragm relaxing
19. Biodiversity is important to ecosystems because:
- a. it helps populations adapt to ecological change
 - b. it increases at each level of the food chain
 - c. it reduces the number of pests
 - d. it prevents competition
20. Choose the **best** response. Tissue fluid contains:
- a. plasma proteins, red blood cells, glucose, ions
 - b. ions, glucose, amino acids, oxygen
 - c. oxygen, hormones, plasma proteins, ions
 - d. hormones, ions, oxygen, red blood cells