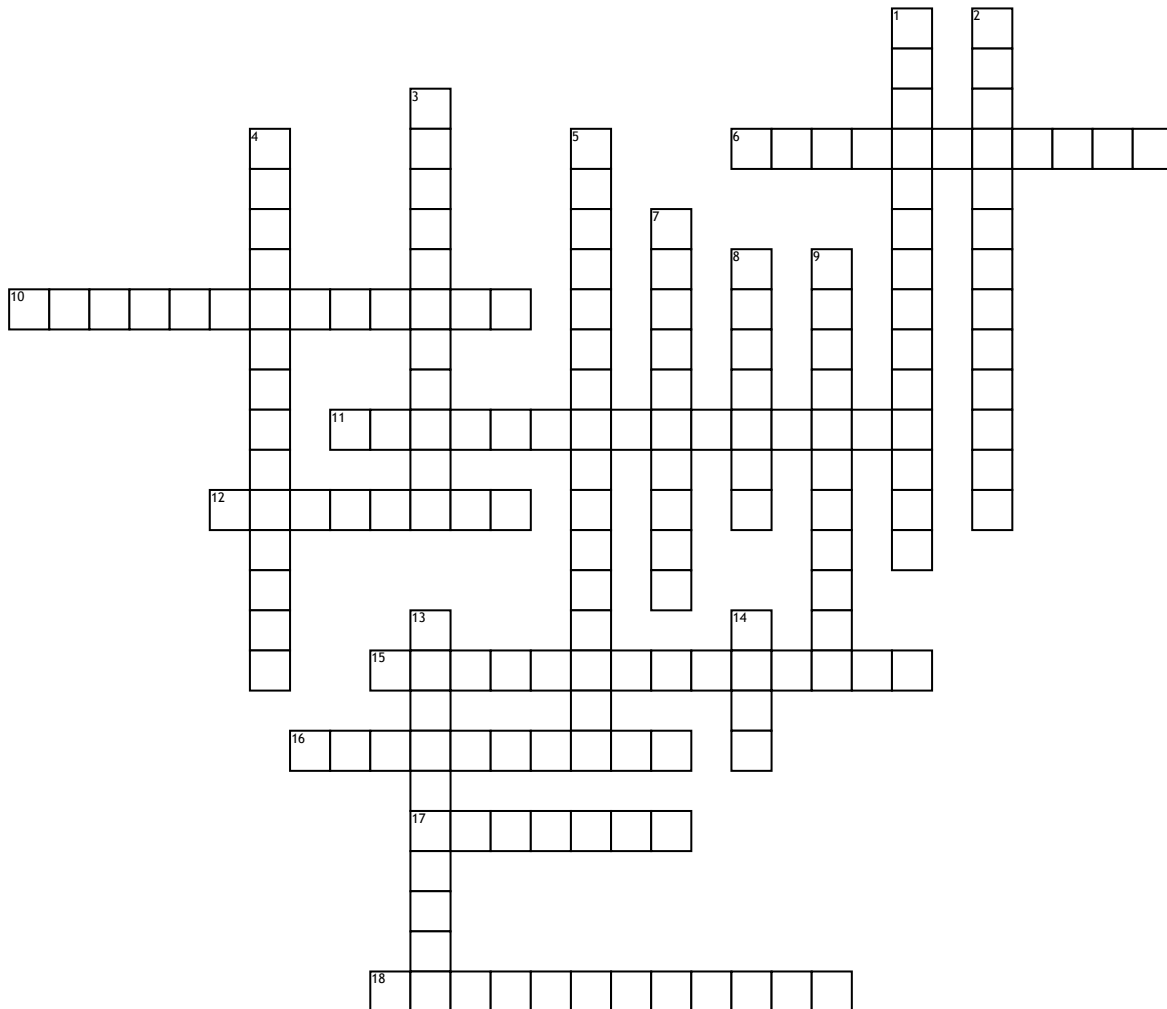


BIOL105 PASS WEEK 4



Across

6. Organisms that require consistent environmental osmolarity
 10. An adaptation where organisms can recover from a dormant and desiccated state
 11. The pumping of molecules against their concentration gradient
 12. Non-toxic excretion of nitrogen, very little water required for excretion but high energy expenditure
 15. Organisms that have the same internal osmolarity as the environment
 16. Cells or solutions with an equal concentration to its surroundings
 17. Toxic excretion of nitrogen, requires water for excretion but has no energy expenditure

18. A cell or solution that has a higher solute concentration than its surroundings

Down

1. The process of balancing an organism's solute concentrations and water balance
 2. Type of excretory gland found in most annelids, cilia pull fluid into collecting tubule and solutes are reabsorbed along the tubule
 3. A cell or solution with a lower solute concentration than its surrounding
 4. Network of dead-end tubules lacking internal openings found in flatworms. Have blind-ending flame bulbs
 5. The movement of molecules across the cell without ATP expenditure

7. Organisms that can survive large changes in environmental osmolarity
 8. The passage of water across a semi-permeable membrane from an area of high concentration to an area of low concentration
 9. The part of a kidney tubule which forms a long loop in the medulla of the kidney, from which water and salts are reabsorbed into the blood
 13. The number of moles of solute/litre
 14. Less toxic excretion of nitrogen, less water required for excretion but some energy loss