

Name:

OL Lab 5: Fluid balance, acid base balance and water balance

Learning Objectives:

- Identify the functions and the location of the major fluid compartments of the body
- Explain the regulation of water balance in order to maintain homeostasis
- Identify the proportions of electrolytes found in the plasma, interstitial fluid, and intracellular fluid compartments of the body and state their functions.
- Describe the major electrolytes in the body, and state their role in electrolyte balance.
- Identify the different pH ranges in the body and understand the compensatory mechanism involved to maintain acid-base balance.

Part 1:

1.1 Complete the chart to locate major fluid compartments of the body and state their functions.

(3 points)

	Compartments	Function
A	Solids	Helps body digest food
B	Intracellular fluid	Fluid within each cell, and accounts for about two-thirds of total body fluids, meaning that majority of body fluid is located inside the cell.
C	Interstitial fluid	bathes the cells of the body. It makes up 80% of the extracellular fluid (26.6% of total body fluids). A number of extracellular fluids may be grouped with interstitial fluid such as lymph, cerebral spinal fluid, synovial fluid, aqueous fluid, vitreous humor, endolymph, perilymph, pleural fluid, pericardial fluid, and peritoneal fluid
D	Extracellular fluid	Accounts for the remaining 1/3 of total body fluids. Two main categories of extracellular fluid are blood plasma and interstitial fluid
E	Blood plasma	Found within the blood vessels. It is clear, yellow fluid containing dissolved organic and inorganic molecules. It accounts for 20% of total extracellular fluid (6.6% of total body fluids)