

Chapter 5, Histology

“Apply What You Know” Answers

- p. 156—Since smaller bodies have more relative surface area, they lose heat more rapidly. Brown fat is a heat-producing tissue that helps to compensate for this by releasing heat.
- p. 161—In the term *muscle fiber*, the fiber is an entire cell. In *nerve fiber*, it is only part of a cell, the axon. In *connective tissue fiber*, it is not a cell or part of a cell at all, but a nonliving extracellular fiber made by a cell.
- p. 163—A desmosome links two cells together only at a small spot; it does not form a continuous seal around a cell. Therefore, the digestive enzymes and acid of the stomach could easily pass between cells and digest the underlying connective tissue if the cells were held together only by desmosomes.
- p. 169—Stratified squamous epithelia do not secrete mucus or have cilia. Therefore, if significant areas of a smoker’s bronchi had stratified squamous epithelia, the bronchi would be less effective in trapping inhaled dust and other debris and there would be no cilia to drive this debris out of the respiratory tract.