Chapter 4
The Cell

1. A scientist wants to magnify a pollen grain 8,000 times and examine the ridges and pores on its surface. Which one of the following instruments would be best?

   a. a transmission electron microscope.
   b. a scanning electron microscope.
   c. a transmission light microscope.
   d. a scanning light microscope.
   e. an inverted light microscope.

2. As cell size increases, the

   a. volume and surface area decreases.
   b. volume increases faster than the surface area.
   c. surface area increases faster than the volume.
   d. surface area and volume increase at the same rate.
   e. None of the above are correct.

3. Which one of the following is not found in prokaryotic cells?

   a. a membrane-bound nucleus
   b. pili
   c. a cell wall
   d. a capsule
   e. ribosomes

4. The function of the nucleolus is

   a. to manufacture polypeptides.
   b. to help manufacture ribosomes.
   c. intracellular digestion.
   d. to store chromatin.
   e. to produce H₂O₂.

5. The stroma is the

   a. thick fluid enclosed by the inner chloroplast membrane.
   b. watery fluid enclosed by the inner membrane of a mitochondrion.
   c. space between the inner and outer membranes of a chloroplast.
   d. space between the inner and outer membranes of a mitochondrion.
   e. fluid within the grana.