Chapter 01: Cellular Biology
McCance/Huether: Pathophysiology: The Biologic Basis of Disease in Adults and Children, 8th Edition

MULTIPLE CHOICE

1. Which statement best describes the cellular function of metabolic absorption?
   a. Cells can produce proteins.
   b. Cells can secrete digestive enzymes.
   c. Cells can take in and use nutrients.
   d. Cells can synthesize fats.

   ANS: C
   In metabolic absorption, all cells take in and use nutrients and other substances from their surroundings. The remaining options are not inclusive in their descriptions of cellular metabolic absorption.

   PTS: 1 DIF: Cognitive Level: Remembering

2. Where is most of a cell's genetic information, including RNA and DNA, contained?
   a. Mitochondria
   b. Ribosome
   c. Nucleolus
   d. Lysosome

   ANS: C
   The nucleus contains the ***nucleolus*****,** a small dense structure composed largely of RNA, most of the cellular DNA, and the DNA-binding proteins, such as the histones, which regulate its activity. The mitochondria are responsible for cellular respiration and energy production. Ribosomes' chief function is to provide sites for cellular protein synthesis. Lysosomes function as the intracellular digestive system.

   PTS: 1 DIF: Cognitive Level: Remembering

3. Which component of the cell produces hydrogen peroxide (H_2O_2) by using oxygen to remove hydrogen atoms from specific substrates in an oxidative reaction?
   a. Lysosomes
   b. Peroxisomes
   c. Ribosomes
   d. Endosome

   ANS: B