Digestive System

Answer Key

1. **Answer**: C

   Explanation: **Chief cells** secrete *pepsinogen*, an inactive form of the enzyme pepsin.

2. **Answer:** C

   Explanation: During the final stage of digestion in the small intestine, polypeptides are broken down into smaller polypeptides by trypsin and chymotrypsin. The smaller polypeptides, in turn, are broken down into amino acids through a digestive enzyme called peptidase.

3. **Answer:** A

   Explanation: The small intestine comes after the stomach. Duodenum, referring to the first few inches of the small intestine, is where the chyme mixes with digestive juices from the pancreas, liver, gallbladder, and glands along the intestinal wall.

4. **Answer:** A

   Explanation: An autotroph is an organism like plants and algae that can produce its own food with the use of light, carbon dioxide, water, or other chemicals. Herbivores are animals that mainly eat autotrophic organisms.

5. **Answer:** B

   Explanation: After swallowing food, muscles propel food by peristalsis, alternating waves of contraction and relaxation of smooth muscles that line the alimentary canal.

6. **Answer**: A

   Explanation: The fat-soluble vitamins are vitamins A (retinol), D, E (tocopherol), and K.

7. **Answer:** C

   Explanation: The body mass index (BMI) is a value derived from the mass and height of a person.

8. **Answer:** C

Explanation: Iron is needed in constructing *hemoglobin* which is a component of red blood cells.

9. **Answer:** A

Explanation: Chromium, cobalt, copper, manganese, molybdenum, selenium, and zinc are minerals needed by the body in trace amounts.

10. **Answer:** B

Explanation: Out of the 20 different amino acids, 12 can be made in the body and the remaining eight are the essential amino acids. A ninth is required in infants in the form of histidine.