Quiz Section Test 1-AA Answers are given in red.



## **1.** Name the structures indicated by the arrow.

cilia



- 2. Which of the following is the <u>type of epithelium</u> shown by the arrow?
- a. simple squamous epithelium
- b. stratified cuboidal epithelium
- c. simple columnar epithelium
- d. pseudostratified ciliated epithelium
- e. stratified squamous epithelium



- 3. What type of <u>cell</u> is shown by the arrow?
- a. keratinocyte
- b. endothelial cell
- c. airway epithelial cell
- d. enterocyte
- e. goblet cell



4. Name the protein found in the region indicated by the arrow.

keratin



5. Name the <u>cell</u> indicated by the arrow.

goblet cell

6. These structures separate the cell membranes of epithelial cells into apical and basolateral compartments.

- a. microvilli
- **b.** cilia
- c. tight junctions
- d. aquaporins
- e. basement membranes

7. Transport via this protein does NOT depend upon a gradient. This is true for which of the following proteins?

- a. glucose transporter
- b. aquaporin
- c. Na<sup>+</sup>/K<sup>+</sup>-ATPase
- d. CFTR
- e. Na<sup>+</sup>/glucose cotransporter

- 8. The rate-limiting and regulated step in fluid secretion by intestinal epithelial cells involves which of the following proteins?
- a. aquaporin (water channel)
- b. Na<sup>+</sup>/K<sup>+</sup>/2Cl<sup>-</sup> cotransporter
- c. Na<sup>+</sup>/K<sup>+</sup>-ATPase
- d. Na<sup>+</sup>/glucose cotransporter
- e. CFTR

- 9. Which of the following best describes what occurs in cholera?
- a. CFTR is blocked by cholera toxin
- b. Na<sup>+</sup>/glucose cotransporter is inhibited by cholera toxin
- c. unregulated fluid secretion by intestinal epithelial cells
- d. cholera toxin inactivates Na<sup>+</sup>/K<sup>+</sup>-ATPase
- e. intestinal fluid secretion is blocked

## **10.** ALL of the following are TRUE about cystic fibrosis EXCEPT

- a. infants with cystic fibrosis may experience intestinal blockage
- b. cystic fibrosis causes thick mucus in the airways of the lungs
- c. disease results in excessive fluid secretion by epithelia
- d. disease causes pancreatic insufficiency
- e. patients with cystic fibrosis experience increased lung infections