Figure 24.1 is a frontal view of the digestive system. First, identify all structures with leader lines. Then select a different color for each of the following organs, and color the coding circles and the corresponding structures on the figure.

- Esophagus
- Pancreas
- Small intestine
- Liver
- Salivary glands
- Tongue
- Colon

Trachea
Diaphragm

Figure 24.1
6. Use the key choices to identify each tooth area described below and use the key choices to label the tooth in Figure 24.4. Then select different colors to represent the key structures with coding circles, and color them on the figure. Finally, add labels to the figure to identify the crown, gingiva, and root of the tooth.

**KEY CHOICES**

- A. Cementum
- B. Denin
- C. Enamel
- D. Periodontal membrane
- E. Pulp

1. Material covering the tooth root
2. Hardest substance in the body; covers tooth crown
3. Attach the tooth to bone and surrounding circular structure
4. Forms the bulk of tooth structure, similar to bone
5. A collection of blood vessels, nerves, and lymphatics
6. Cells that produce this substance degenerate after tooth eruption

7. Various types of glands secrete substances into the alimentary tube. Match the glands listed in Column B with the functions and locations described in Column A.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mucus-producing glands located in the submucosa of the small intestine</td>
<td>A. Brunner's glands</td>
</tr>
<tr>
<td>2. Secretory product contains amylase, a starch-digesting enzyme</td>
<td>B. Gastric glands</td>
</tr>
<tr>
<td>3. Sends a variety of enzymes in bicarbonate-rich fluid into the small intestine</td>
<td>C. Liver</td>
</tr>
<tr>
<td>4. Produces bile, which is transported to the duodenum via the common bile duct</td>
<td>D. Pancreas</td>
</tr>
<tr>
<td>5. Produces hydrochloric acid and pepsinogen</td>
<td>E. Salivary glands</td>
</tr>
</tbody>
</table>
3. Using the key choices, match the terms with the descriptions of digestive system organs that follow by inserting the appropriate answers in the answer blanks

**KEY CHOICES**

A. Anus  
B. Appendix  
C. Colon  
D. Esophagus  
E. Greater omentum  
F. Hard palate  
G. Haustra  
H. Ileocecal valve  
I. Lesser omentum  
J. Mesentery  
K. Microvilli  
L. Oral cavity  
M. Peritentinal peritoneum  
N. Peyer's patches  
O. Pharynx  
P. Plicae circulares  
Q. Pyloric valve  
R. Rugae  
S. Small intestine  
T. Soft palate  
U. Stomach  
V. Tongue  
W. Vestibule  
X. Villi

1. Connects the small intestine to the posterior abdominal wall, looks like curtains

2. Projections of the intestinal mucosa that increase the surface area

3. Large collections of lymph nodules found in the submucosa of the small intestine

4. Folds of the small intestine wall

5. Two anatomical regions involved in the mechanical breakdown of food

6. Mixes food in the mouth and initiates swallowing

7. Common passage for food and air

8. Three peritoneal modifications

9. A food chute; has no digestive or absorptive role

10. Folds of the stomach mucosa and submucosa

11. Saddle outpocketing of the large intestine wall

12. Projections of the plasma membrane of a cell that increase the cell's surface area

13. Prevents food from moving back into the small intestine once it has entered the large intestine

14. Responsible for most food and water absorption

15. Primarily involved in water absorption and feces formation

16. Cul-de-sac between the teeth and lips or cheeks

17. Blind-ended tube hanging from the cecum