Digestive System Histology

Directions:
a. Click the "Contents" button.
b. Open the Digestive System File.
c. Click Anatomy Overviews.
d. Click Digestive System Histology.

1. Describe the general functions of digestive system histology (include liver and pancreas, too).

2. a. From the Digestive System Histology main page, click Gastrointestinal Tract Histology (general) and identify each of the following.

   Mucosa associated lymphoid tissue (MALT)
   Lumen
   Mucosa
     Epithelium
     Lamina propria
     Muscularis mucosae
   Submucosa
   Submucosal Gland
   Mucosal Gland
   External gland duct
   Enteric nervous system plexuses
   Blood vessels
   Muscularis
     Longitudinal muscle
     Circular muscle
   Mesentery
   Serosa
     Connective tissue
     Epithelium

   b. Name the four layers of the GI tract from deep to superficial.

   c. What is the function of the enteric nervous system?
3. Return to the main Digestive System Histology page. Click *pancreatic histology* and identify the following.

- Pancreas
- Duodenum
- Acinar cells
- Pancreatic ducts
- Islets of Langerhans

b. What is the function of pancreatic enzymes and bicarbonate?

4. a. Return again to the main Digestive System Histology page. Click *large intestine histology* and identify each of the following.

- Lumen
- Intestinal gland openings
- Simple columnar epithelium
- Lamina propria
- Lymphatic nodules
- Muscularis mucosae
- Lymphatic vessel
- Arteriole
- Venule
- Myenteric plexus
- Circular muscle layer
- Longitudinal muscle layer
- Mucosa
- Submucosa
- Muscularis
- Serosa

b. Describe the primary function of large intestine mucosa.
c. What is the function of large intestinal mucus?

5. a. Click Liver Histology from the main Digestive System Histology page and identify each of the following.

   ![Liver Histology Diagram]

   - Hepatocytes
   - Bile duct
   - Hepatic portal vein
   - Hepatic artery
   - Central vein
   - Sinusoids

   b. Determine blood flow to the hepatic vein.

   c. Determine bile flow.

   d. What is the function of bile?
6. a. From the main Digestive System Histology page, click *Esophagus Histology*. Identify each of the following.

- Contracted muscularis
- Bolus
- Relaxed muscularis
- Stomach
- Mucosa
  - Nonkeratinized stratified squamous epithelium
- Lamina propria
- Muscularis mucosae
- Submucosa
- Muscularis
  - Circular layer
  - Longitudinal layer
- Adventitia

b. What is the function of the stratified squamous epithelium that lines the esophagus?

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c. What is the function of the muscularis layers?

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7. a. Returning once again to the main Digestive System Histology page, click Stomach Histology and identify each of the following.

- Stomach Lumen
- Gastric pit
- Simple columnar epithelium
- Lamina propria
- Gastric gland
- Lymphatic nodule
- Muscularis mucosae
- Lymphatic vessel
- Venule
- Arteriole
- Oblique muscle layer
- Circular muscle layer
- Myenteric plexus
- Longitudinal muscle layer
- Mucosa
- Submucosa
- Muscularis

b. What functions are served by the stomach mucosa?

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c. What is the function of the stomach muscularis?

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8. a. One last time, return to the main Digestive System Histology page and click Small Intestine Histology. Identify each of the following.

- Small Intestine Lumen
- Lacteals
- Lymphatic Vessels
- Blood Capillaries
- Arterioles
- Venules
- Villus
- Simple Columnar Epithelium
- Lamina Propria
- Lymphatic Nodule
- Muscularis Mucosae
- Circular Muscle Layer
- Longitudinal Muscle Layer
- Mucosa
- Submucosa
- Muscularis
- Serosa
b. What is the primary function of the small intestine?

c. What is the function of the mucosa?