

Distance Learning Assignment Week 1 (April 20- 24) Due on Monday April 27th

Class: Human Physiology

Teacher: Mrs. Ceja

Content: Digestive System Ch. 14

Student Assignment:

- 1) Virtual Cat Dissection
- 2) Review for Ch.14

Student Instructions:

- 1) Virtual Cat Dissection should be written up in Notebook. Examine the pictures of the dissection and answer the questions. Questions should be written out and answered in notebook. This is to be written as a formal Lab

Format:

Title: Virtual Cat Dissection <http://anatomycorner.com/main/virtual-cat-dissection/>

Hypothesis: To investigate the anatomy of a Cat

Materials: Web, Notebook, Pencil

Procedures: Drawn pics of student going through cite

Data: not necessary for this lab

Questions: to be written in NB and answered

Conclusion: 2-3 sentences concluding

Anatomy and Physiology of the Digestive System (pp. 454-467)**A. Organs of the Alimentary Canal (GI Tract) (pp.455-464; Figure 4.2):****Be able to describe Structure & Function**

1. Mouth (oral Cavity) Anatomy
 - a. Lips (labia) –
 - b. Cheeks –
 - c. Hard palate –
 - d. Soft palate-
 - e. Uvula-
 - f. Vestibule-
 - g. Tonsils
 - i. Palatine tonsils-
 - ii. Lingual tonsil-
 - h. Processes of the Mouth-
2. Be able to label the anatomy of the Human Pharynx
 - a. Nasopharynx-
 - b. Oropharynx-
 - c. Laryngopharynx-
 - d. Pharynx function –
3. Esophagus-
4. Be able to draw a flow chart with the correct order of the Layers of Alimentary Canal Organs
Include the following: Serosa, Mucosa, Submucosa, Muscularis externa
5. Be able to label the different portions of the Stomach Anatomy (Figure 14.4)
Include the following Regions of the Stomach (Cardiac region, Fundus, Body, Pylorus)
 - b. Describe Rugae and their functions?
 - c. Draw the external regions (include: Lesser curvature & Greater curvature)

6. **Name the various Stomach Functions-**
7. **Mucosa of the stomach: Describe the significance of each?**
 - a. epithelium-
 - b. Mucous neck cells-
 - c. Gastric glands-
 - d. Chief cells-
 - e. Parietal cells-
 - f. Endocrine cells-
8. **Structure of the Stomach Mucosa: Describe the significance of each?**
 - a. Gastric pits-
 - b. Glands-
9. **Small Intestine: Name the 2 sphincters that regulate it?**
 - a. Duodenum? (Structure/Function)
 - b. Jejunum? (Structure/Function)
 - c. Ileum? (Structure/Function)
10. Source of enzymes that are mixed with chyme **Describe the significance of each?**
 - a. Bile-
 - b. Villi-
 - c. Microvilli-
11. Large Intestine (Figure 14.8) –
 - a. Functions of the Large Intestine-
 - b. Structures of the Large Intestine (Structure/Function)
 - i. Cecum-
 - ii. Appendix
 - c. Colon (Structure/Function/Location)
 - i. Ascending-
 - ii. Transverse-
 - iii. Descending
 - iv. S-shaped sigmoidal-

d. Rectum-

e. Anus-

12. Modifications to the Muscularis Externa in the Large intestine-

B. Accessory Digestive Organs (pp. 464-467)

1. a. Salivary Glands-

i. Salivary Amylase-

b. Saliva producing glands

i. Parotid-

ii. Submandibular-

iii. Sublingual-

c. Saliva-

3. Pancreas-

a. Name the function of these various endocrine products of the pancreas?

i. Insulin?

ii. Glucagon?

4. Liver-

a. Name the functions and application of bile? Describe the anatomy of the Human liver? And its major functions?

b. What purpose does the Gall Bladder serve? Where is it located? What are some complications that arise from it?

II. Processes of the Digestive System

A. Overview of Gastrointestinal Processes and Controls

1. What is Ingestion?

2. Propulsion?

3. Peristalsis?

4. Segmentation?

b. What is Mechanical Digestion?

c. Chemical Digestion?

d. Absorption?

e. Defecation?

B. Control of Digestive Activity-

- a. Stimuli include-
- b. Reflexes include-
- c. Digestive Activities of the Mouth -
 - i. Mechanical Breakdown-
 - ii. Chemical Digestion-
- d. Activities of Pharynx, and Esophagus-
 - i. deglutition-
 - ii. Buccal phase
 - iii. Pharyngeal-esophageal phase
- e. Activities of the Stomach-
 - i. What is meant by protein digesting enzymes?
 - ii. Where is the Pylorus of the stomach located? What is its function?
- f. Activities of the Small Intestine-
 - i. enzymes from the brush border-
 - ii. Pancreatic enzymes: **Describe the significance of each?**
 - (1) Pancreatic amylase-
 - (2) trypsin etc.-
 - (3) Lipase –
 - (4) nucleases-
- g. Name the most common local hormones-
- h. Describe absorption mechanisms in the small intestine-
- j. Activities of the Large Intestine
 - i. Discuss the importance of resident bacteria?
 - ii. Discuss the importance of water absorption?



CAT DIGESTIVE SYSTEM (VIRTUAL)

<http://anatomycorner.com/main/image-gallery/cat-dissection/>

Sagittal Section of the Head:

1.) Locate the cat's tonsils. What are they called? _____

Esophagus & Trachea:

2.) The brownish, round structure in the center of the image is the _____, while the white structure below that is the _____.

General view (ventral):

3.) How many lobes of the liver does the cat have? _____

4.) The structure lying just below the liver (right corner of screen) is the _____.

General view (ventral) mesentery tissue removed:

5.) What sex is the cat on the screen? _____

6.) Which structure **makes** bile? _____

7.) Which structure stores urine? _____

8.) Which structure **stores** bile? _____

Lobes of the Liver:

9.) Name the lobes of the liver.

Gallbladder & Liver:

10.) Locate the gallbladder. What color does it appear? _____

Stomach, Spleen, & Pancreas:

- 11.) The first part of the small intestine is the _____.
- 12.) The sphincter between the stomach and the small intestine is called the _____.
- 13.) What does the pancreas secrete? _____

Small & Large Intestine:

- 14.) The straight part of the small intestine is the _____ while the curved part is called the _____.
- 15.) Another name for the large intestine is the _____.
- 16.) The first part of the large intestine is called what? _____
- 17.) Then as it (the large intestine) turns it is called the _____.
- 18.) As the large intestine turns downward it is referred to as the _____.
- 19.) And lastly, the end of the large intestine is called what? _____