**Anatomy Worksheet 13**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Digestive System**

#### 

**Exercise 1.** Structures of the Gastrointestinal Tract. Complete the following statements:

**1.** The part of the pharynx above the soft palate is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**2.** In the digestive system, the process of taking food into the mouth is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**3.** The total volume of saliva produced by all the salivary glands is from \_\_\_\_\_ to \_\_\_\_\_ L per day.

**4.** Saliva is about 99.4% \_\_\_\_\_\_\_\_\_. At what *specific* location in the mouth do ducts for the sublingual salivary glands enter? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. At what *specific* location in the mouth do ducts for the parotid salivary glands enter? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**5.** The esophagus is about \_\_\_\_\_\_\_ cm long and enters the abdominal cavity through the opening in the diaphragm called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**6.** List in order from proximal to distal, the four regions of the stomach:

**1)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **2)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **3)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **4)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7.** Chief cells in the stomach secrete \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which is converted into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and is for the digestion of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the presence of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**8.** The outermost muscular layer in the tunica muscularis externa is always \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**9.** Along the G.I. tract, the nervous structure called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is located in between the circular and longitudinal muscle of the tunica muscularis externa.

**10.** The term used to describe the location *behind* the peritoneal cavity is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**11.** List two structures of the digestive system that are located in the answer for Q 10: **1)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and **2)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**12.** **a)** liver **b)** pancreas **c)** teeth **d)** spleen **e)** gallbladder **f)** thymus **g)** tongue **h)** stomach **i)** esophagus

From the list of letters above, which of following are: **1)** part of the G.I. tract: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**2)** Accessory digestive organs: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**13.** What is the correct anatomical term for our “baby teeth”? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**14.** Most of the digestive tract is lined with this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**15.** The main role of the Large Intestine is the absorption of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Exercise 2.** Match the structures of the G. I. tract (letters) with the descriptions (numbers) below.

**A.** tunica serosa **F.** common hepatic duct **K.** telasubmucosa **P.** mucus gland

**B.** common bile duct **G.** Brunner's glands **L.** sphincter of Oddi **Q.** taenia coli

**C.** parotid salivary gland **H.** esophageal glands **M.** lesser duodenal papilla **R.** haustra

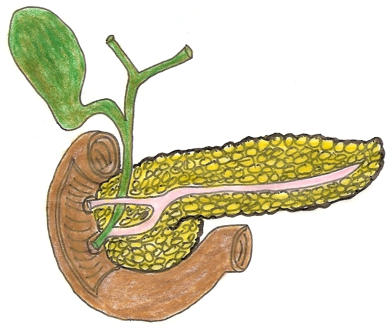
**D.** greater duodenal papilla **I.** tunica mucosa **N.** myenteric plexus  **S.** gastric gland

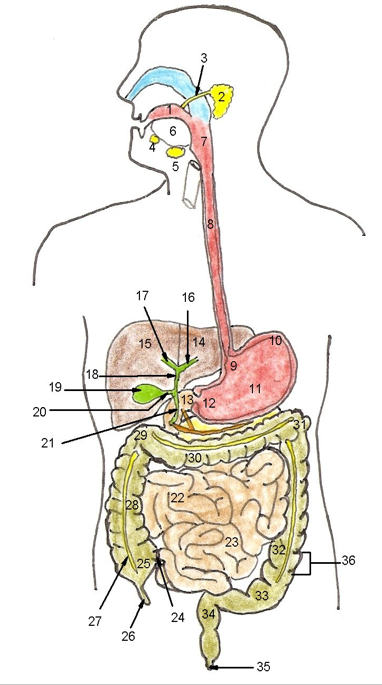
**E.** tunica adventitia **J.** pyloric sphincter **O.** chemical digestion **T.** left bile duct

1. \_\_\_ structure located deep in the lamina propria of stomach.
2. \_\_\_ a thickening of the circular muscle layer that controls the movement of chyme.
3. \_\_\_ collects contents from cystic duct and delivers to main pancreatic duct.
4. \_\_\_ a strip of longitudinal muscle found in the large intestine.
5. \_\_\_ found in the submucosa of the duodenum.
6. \_\_\_ an *auxiliary* pathway to deliver contents to the initial segment of the small intestine.
7. \_\_\_ a structure that secretes amylase to aid in the digestion of starches.
8. \_\_\_ the Peyer's patches of the ilium are found here.
9. \_\_\_ a pouch that permits distention of the colon wall.
10. \_\_\_ is made of simple squamous epithelium and areolar connective tissue.

**Exercise 3.** Some Accessory Organs

**1)** Labeled the diagram below of the anatomical arrangement between of the gallbladder, pancreas and duodenum.





**Exercise 4.** The Gastrointestinal Tract

Name the structures of the digestive system indicated by the numbers in the drawing to the right.

Use the numbers here below to *squeeze* in the names of the structures in the drawing!

1 2 3 4 5 6

7 8 9 10 11 12

13 14 15 16 17 18

19 20 21 22 23 24

25 26 27 28 29 30

31 32 33 34 35 36

**Exercise 5.** Table 1. For each of the following structures below, provide the location (organ and quadrant of abdominal cavity) and the general function or significance of the structure.

|  |  |  |
| --- | --- | --- |
| **Structure** | **Location** | **Function** |
| Lesser omentum |  |  |
| Greater omentum |  |  |
| Falciform ligament |  |  |
| Greater duodenal  papilla |  |  |
| Cystic duct |  |  |
| Gastric rugae |  |  |
| Parotid duct |  |  |
| Pyloric sphincter |  |  |
| Fundus |  |  |
| Taeniae coli |  |  |
| Cecum |  |  |
| Mesentery (proper) |  |  |
| Brunner's glands |  |  |
| Islets of Langerhans |  |  |
| Appendix |  |  |

**Exercise 6.** The mouth and teeth. **1)** Define these terms with regard to the five surfaces to each tooth:

**1.** Occlusal:

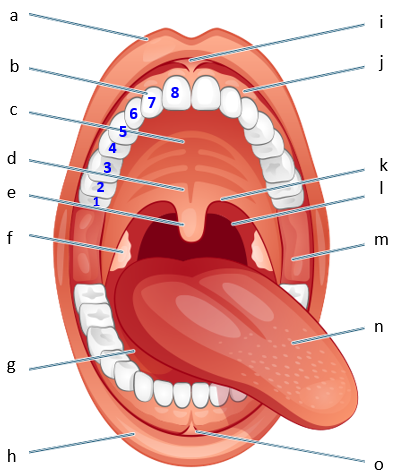
**2.** Mesial:

**3.** Distal:

**4.** Buccal:

**5.** Lingual:

**2)** Name the structures identified in this image of the mouth and teeth and fill hem in below.



**1** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**a** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**b** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**c** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**d** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**e** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**f** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**g** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**h** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**i** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**j** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**k** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**l** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**m** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**n** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**o** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_