



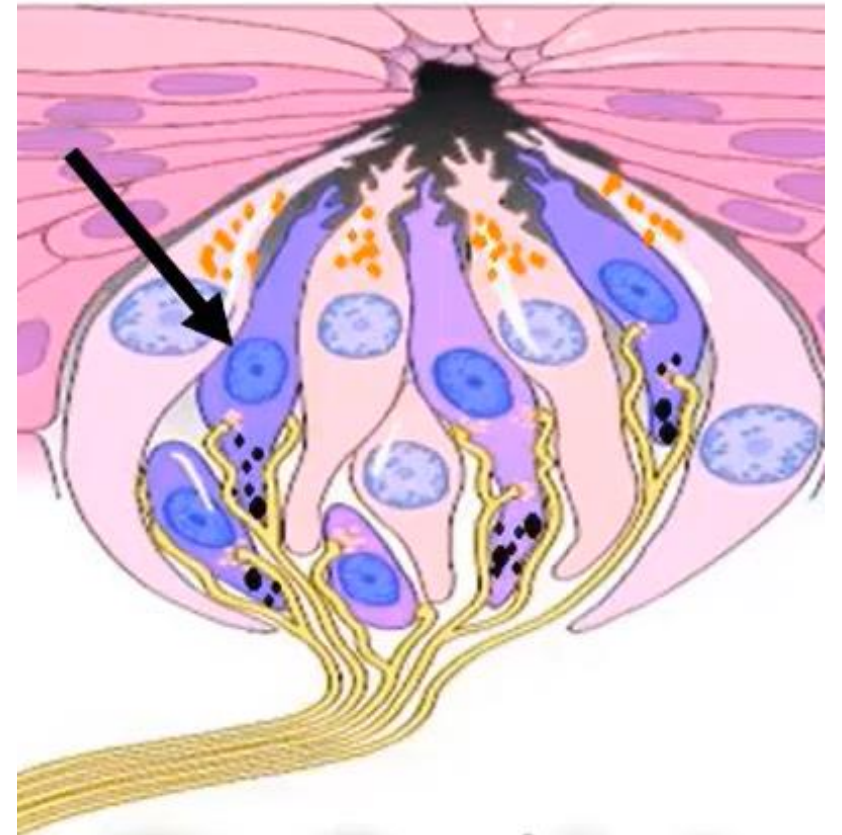
HISTOLOGY  
*By Mutaz Sarrar*

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• Which statement is correct regarding the pointed cell?

- 1- They renew the other cells regularly.
- 2- They support the receptor cells.
- 3- They found in the epithelium of the filiform papillae.
- 4- They are the taste receptive cell.

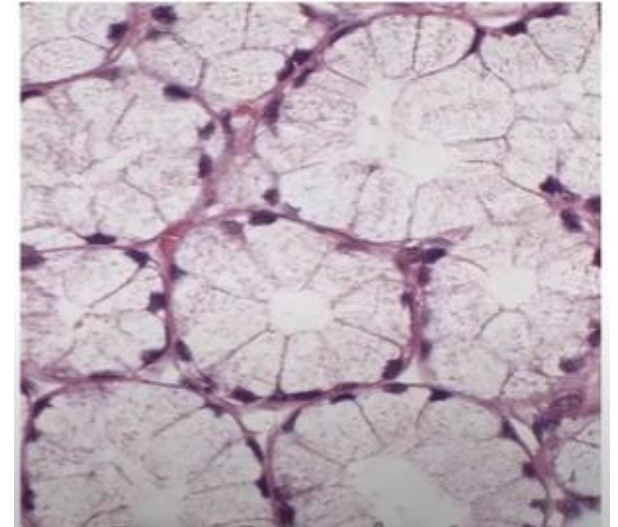
ANS:4



What is the best statement describing these histological structures?

- 1- They are present in the parotid gland.
- 2- Their secretion is rich in digestive enzymes.
- 3- They are glycoprotein secreting cells.
- 4- They contain numerous basal mitochondria.

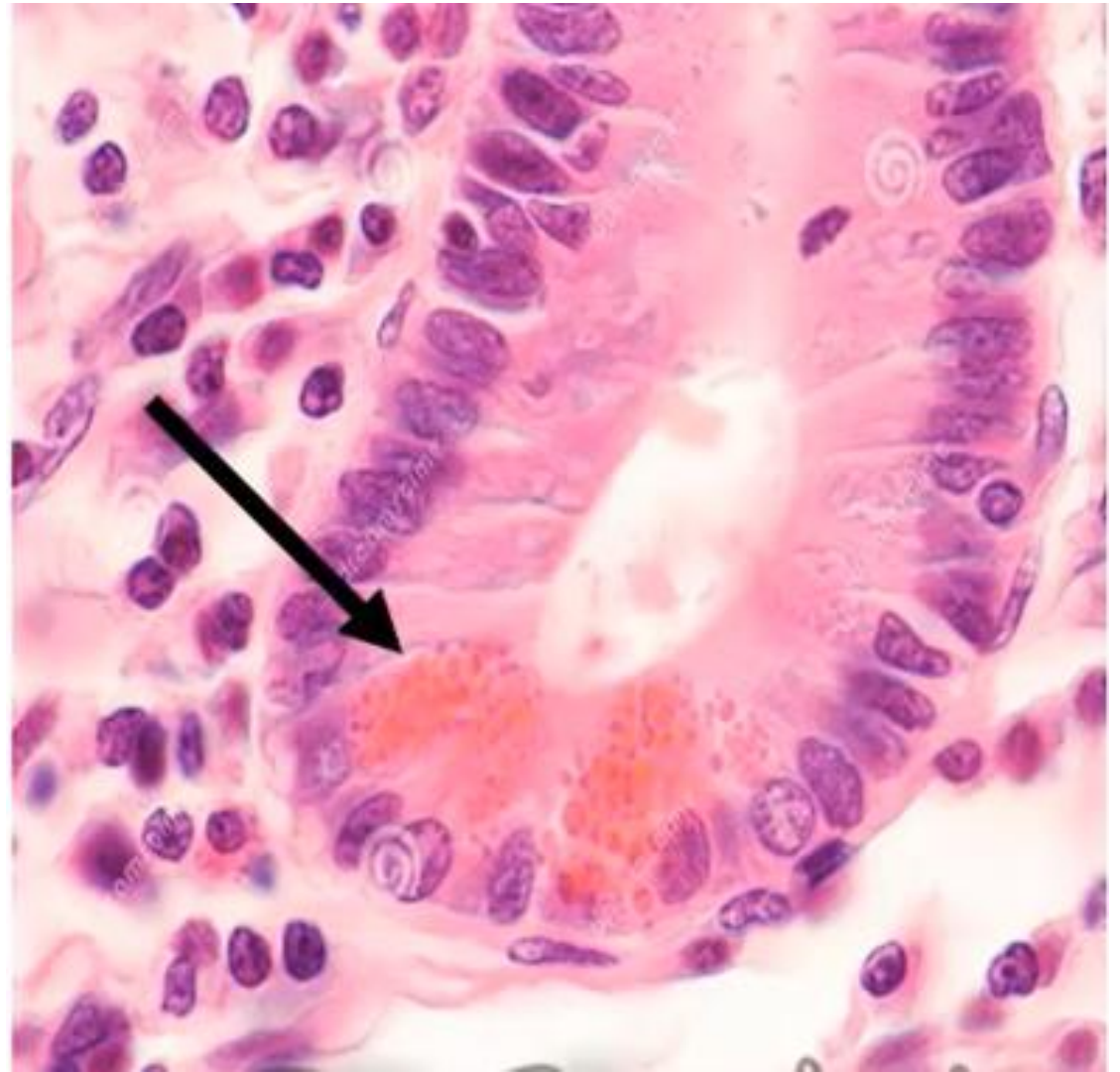
ANS:3





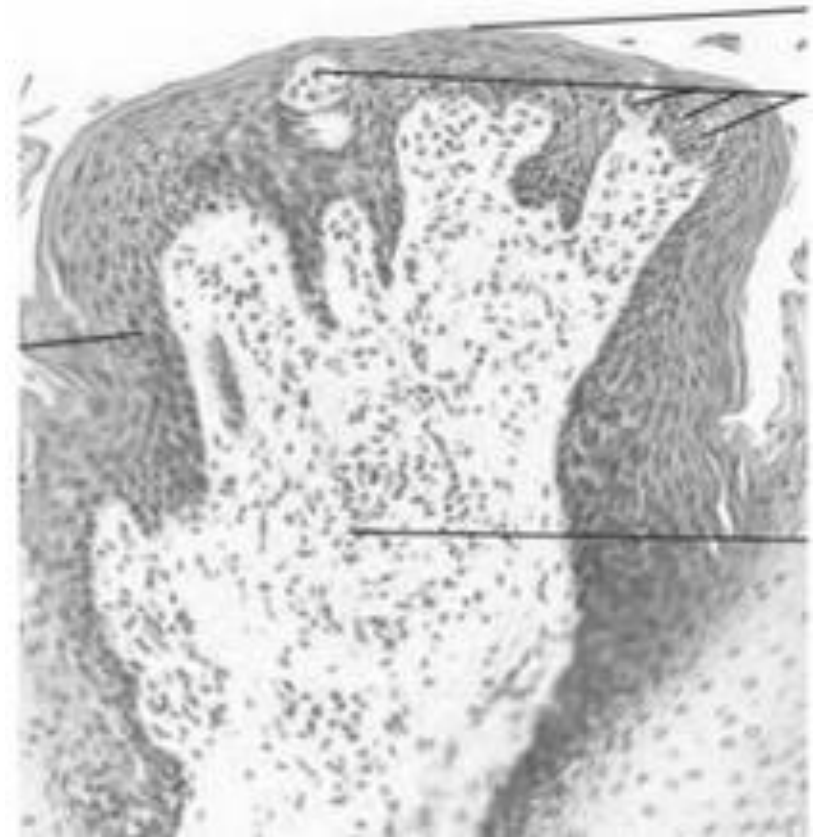
- A histological section in the mucosa of the small intestine, reveals numerous cell types, what is the function of the pointed cell?
- 1- Secrete mucous for protection of the intestinal mucosa.
- 2- Absorption of the digested nutrients.
- 3- Secretion of motilin hormone.
- **4-Secretion of antibacterial agents.**

ANS:4



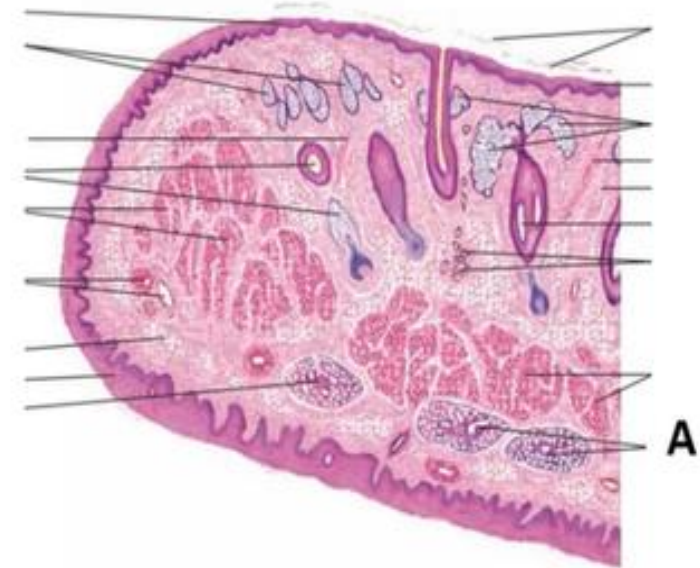
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- Where is the type of lingual papillae in the opposite photo found?
  - 1. On the posterior part of the lateral sides of the tongue.
  - 2. In front of the sulcus terminalis
  - 3. In rows parallel to gustatory line
  - 4. At the tip of the tongue

ANS:4



- In the attached diagram of a histological section of the lip, what is the function of the pointed structures at A?
- 1. Act as a cushion to trauma.
- 2. Produce an oily fluid for lubrication of the hair.
- **3. Secrete mucous secretion to moisten the oral cavity.**
- 4. Contract to close the lip.

ANS:3



- Electron microscopic examination of the taste buds reveals short triangular cells resting on the basal lamina, what is the function of these cells?
- 1. Support the gustatory cells.
- 2. Renewal of the receptor cells.
- 3. Secrete mucous for lubrication of the mouth cavity.
- 4. Receive the gustatory stimuli.

ANS:2

- What is the correct description of the histological structure of the tongue?
- 1. The ventral surface is lined with the masticatory mucosa.
- 2. The striated muscles are running circumferentially.
- 3. The mucosa of the anterior 2/3 of the dorsal surface is firmly attached to the underlying tissue.
- 4. All the lingual papillae contain taste buds that differ in the type of the taste they receive.

ANS:3



- The taste buds of the type of the lingual papilla in the attached figure receive which type of taste?

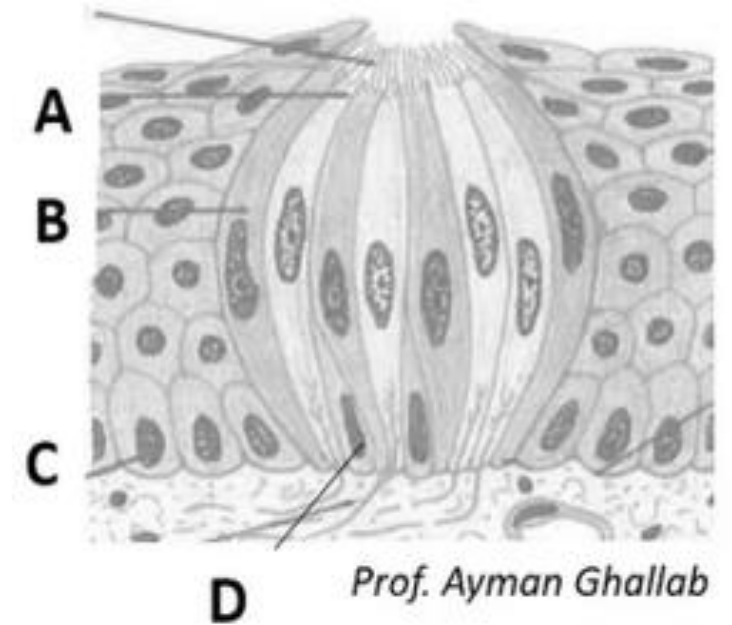
- **1. Bitter taste only.**
- 2. Sour taste only.
- 3. Sweet and salt taste.
- 4. Salt and sour taste.

ANS:1



- In the opposite diagram, which cell acts as a neuron?
- **1. Cell at A.**
- 2. Cell at D.
- 3. Cell at C.
- 4. Cell at B

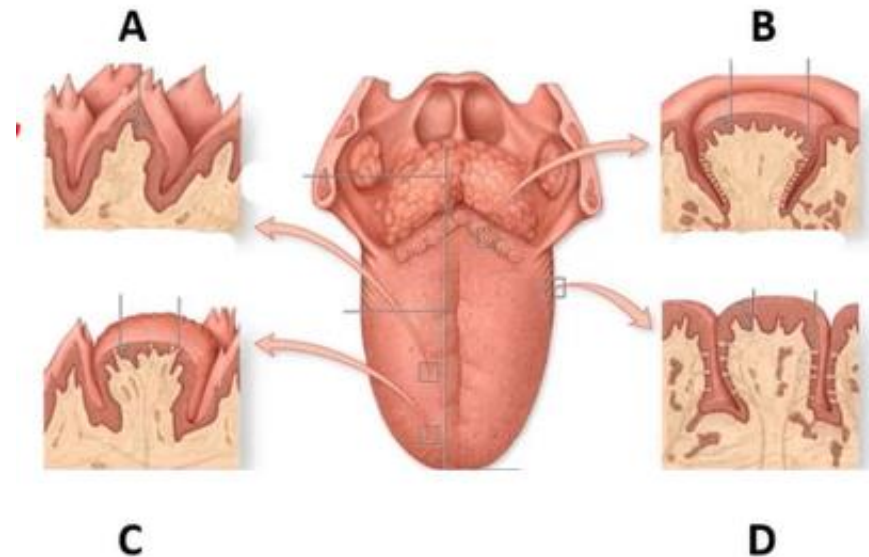
ANS:1



- The attached figure represents four types of lingual papillae, Which type is correctly matching its corresponding feature?

- 1. Papilla B.....is rudimentary in adult human.
- 2. Papilla A.....has postero-anterior inclination.
- 3. Papilla D.....is the largest papilla.
- 4. Papilla C.....has a vascular connective tissue core.

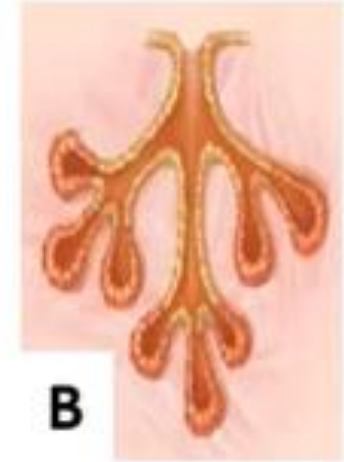
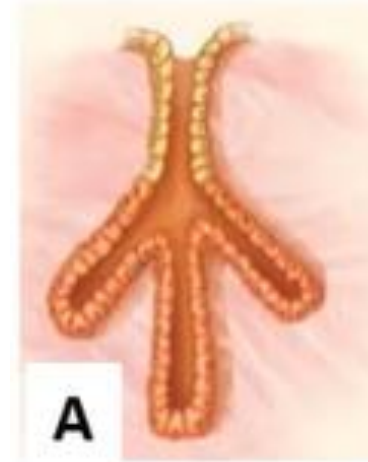
ANS:4



- The attached photos represent 4 types of exocrine glands, to which type do the major salivary gland belong?

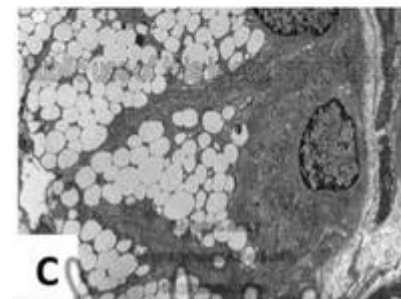
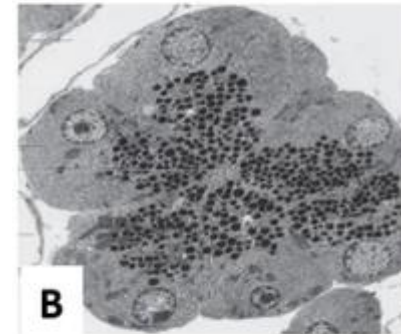
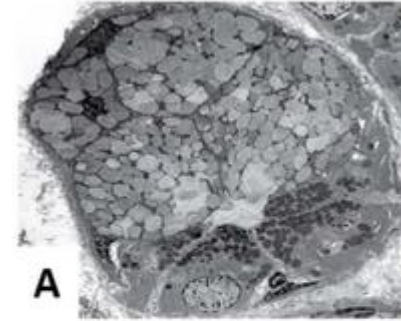
- 1. Type C.
- 2. Type D.
- 3. Type B.
- 4. Type A

ANS:3



- The attached figures represent three types of salivary gland acini, which of the following statements is correctly describing the acini of the salivary glands?
- 1. The submandibular glands contain 80% A and 20% C.
- 2. The parotid glands contain 100% of A.
- 3. Labial glands contain 100% of B.
- 4. The sublingual glands contain 99% of C and 1% of A.

ANS:4



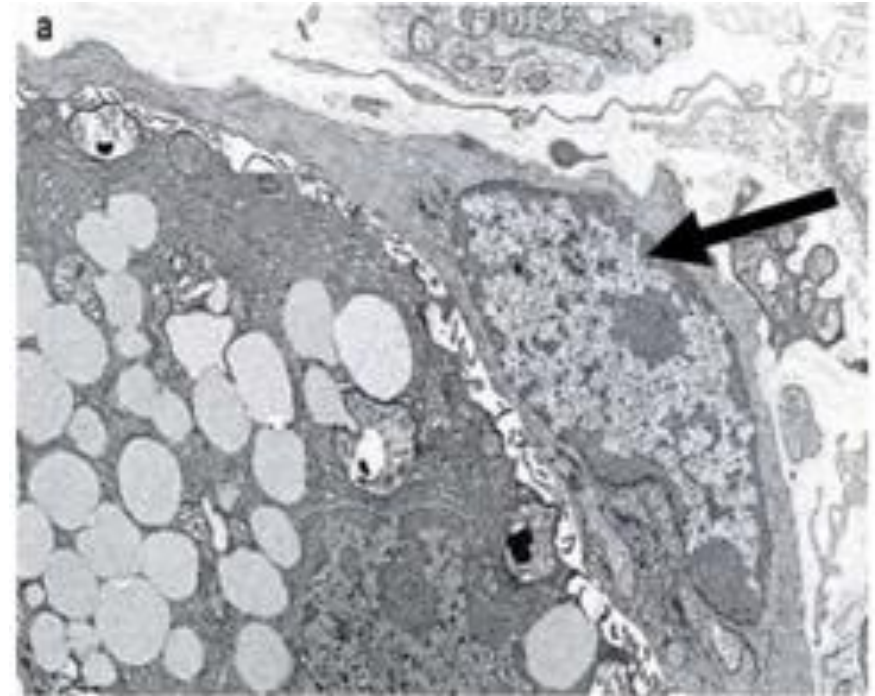


- What is the structural adaptation of the serous salivary acinus to its function?
- 1. Numerous basket cells.
- 2. Multiple peripheral rough endoplasmic reticulum.
- 3. Infranuclear golgi apparatus.
- 4. Central secretory vesicles.

ANS:2

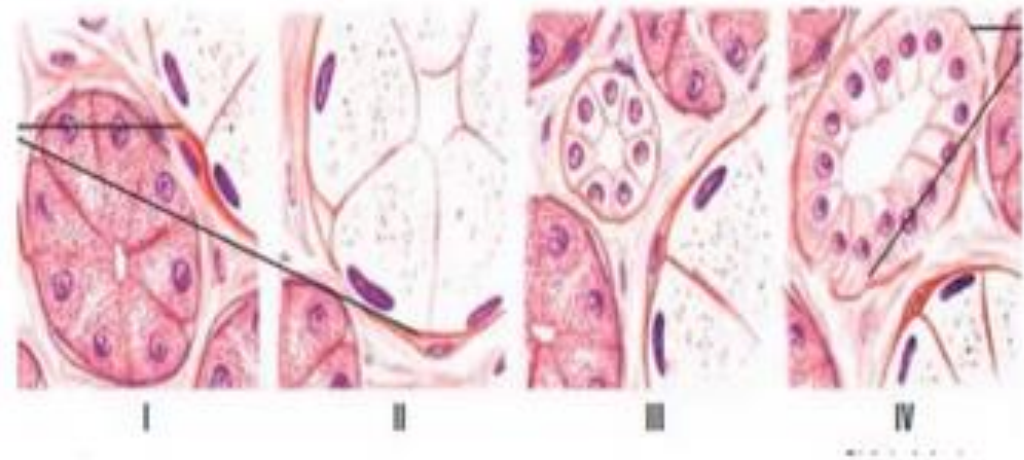
- How does the pointed cell in the opposite photo adapt to its function?
- 1. Multiple profiles of rER.
- **2. Contractile filaments.**
- 3. Abundant lysosomes.
- 4. Numerous secretory granules.

ANS:2



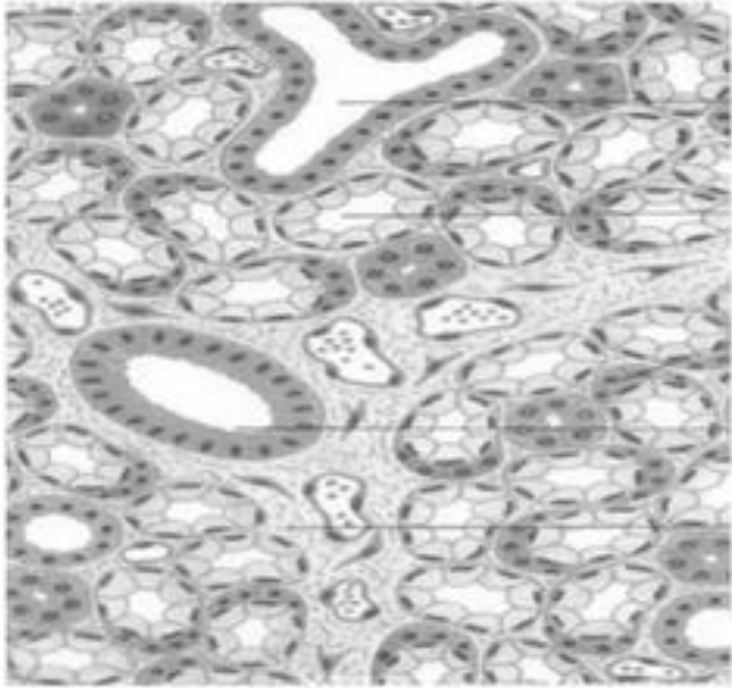
- Modification of the secretion in the salivary glands occurs in which of the following structures in the attached diagram?
- 1. Structures II & III.
- 2. Structures I & II.
- **3. Structures III & IV.**
- 4. Structures II & IV.

ANS:3



- What is the lining epithelium of the interlobar ducts of the major salivary glands?
- 1. Pseudostratified columnar epithelium.
- 2. Simple columnar epithelium.
- 3. Simple cuboidal epithelium.
- 4. Stratified columnar epithelium.

ANS:1



- Which statement is describing the organ in the attached figure?
- 1. The connective tissue septa are thin.
- 2. The fat cells are absent.
- 3. The secretory striated ducts comprise 80% of the length of intralobular ducts.
- 4. The acini are purely serous.

ANS:3



- Which of the following statements is not related to maintain the integrity of the esophageal epithelium?
- 1. Secretion of neutral mucous by the mucosal glands.
- 2. Continuous renewal of the epithelium by its basal layer.
- 3. Lubricant mucous secreted by the submucosal glands.
- 4. Rich vascularity of the epithelium.

ANS:4

- Which statement describes the histological structure of the thoracic part of the esophagus?
- 1. The muscularis mucosae consists of circular smooth muscle fibers.
- 2. The outermost layer is covered by a serosa.
- 3. The lamina propria consistently contains mucosal esophageal glands.
- 4. The muscularis composed of striated muscle fibers only.

ANS:4

- Which layer contains Auerbach's plexus?
- 1. Submucosa.
- 2. Lamina propria.
- 3. Adventitia.
- 4. Muscularis externa.

ANS:4

- Which structure-function combination of the histology of the esophagus is incorrect?1. Muscularis.....peristalsis for movement of the food.
- 2. Submucosal esophageal glands.....protect against gastric reflux.
- 3. Basal epithelial layer.....renewal of epithelium.
- 4. Non keratinized stratified epithelium..... physical barrier.

ANS:2

- Which functional adaptation doesn't match its corresponding cell?
- 1. Oxyntic cells.....increase in the number of tubulovesicular system in active state.
- 2. Stem cells....numerous polysomes.
- 3. Peptic cells.....Peripheral rER.
- 4. Enteroendocrine cells.....Infranuclear Golgi apparatus

ANS:1



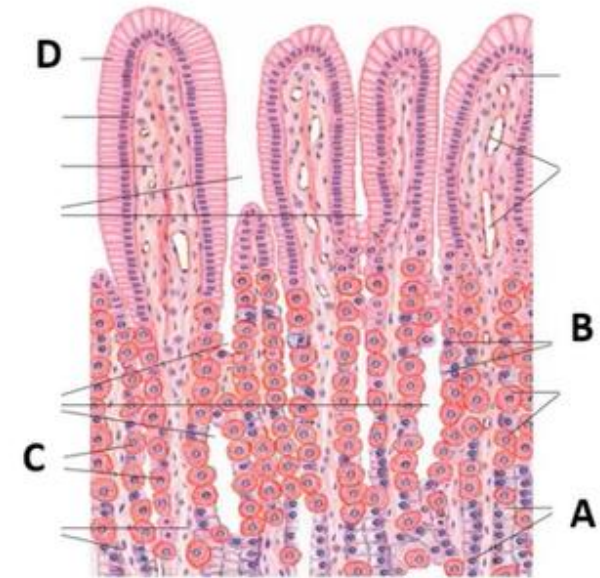
- Which statement describes the histological structure of the gastric rugae?
- 1. They are circular folds that disappear during distension.
- 2. They are permanent gastric folds.
- 3. They are invagination of the mucosal surface into the lamina propria.
- 4. They are longitudinal folds of the mucosa & submucosa.

ANS:4

- In the attached figure, which number refers to the cell that protects the epithelium from autodigestion?

- 1. C.
- 2. A.
- 3. D.
- 4. B.

ANS:3

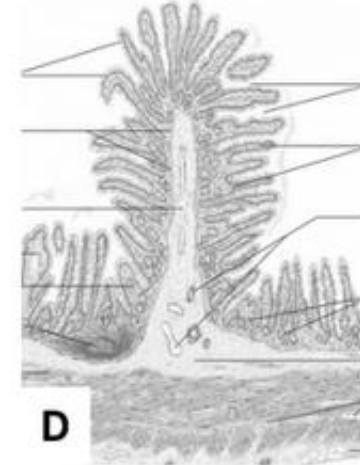
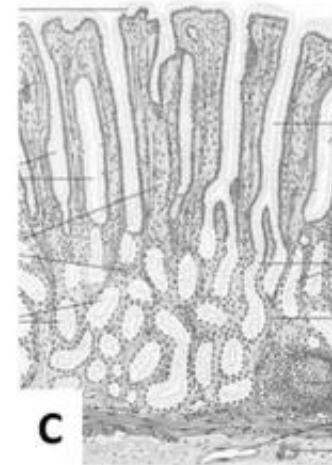
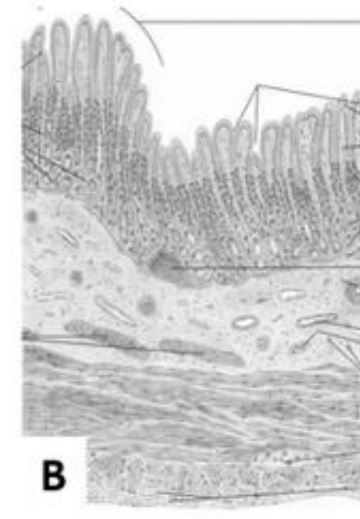
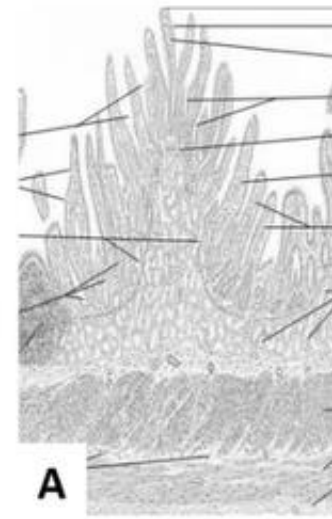


- Which type of cells is correctly matching its corresponding function?
- 1. Peptic cells.....secrete HCl.
- 2. Enteroendocrine cells.....renewal of epithelium.
- 3. Surface mucous cells.. secrete insoluble mucous.
- 4. Parietal cells secrete pepsinogen.
- ANS:3

- In the attached figures, cells with frequent mitotic figures are present mainly in the basal parts of the glands of which parts of the digestive tract?

- 1. B&C.
- 2. A&D.
- 3. B,C&D.
- 4. A&B.

ANS:2

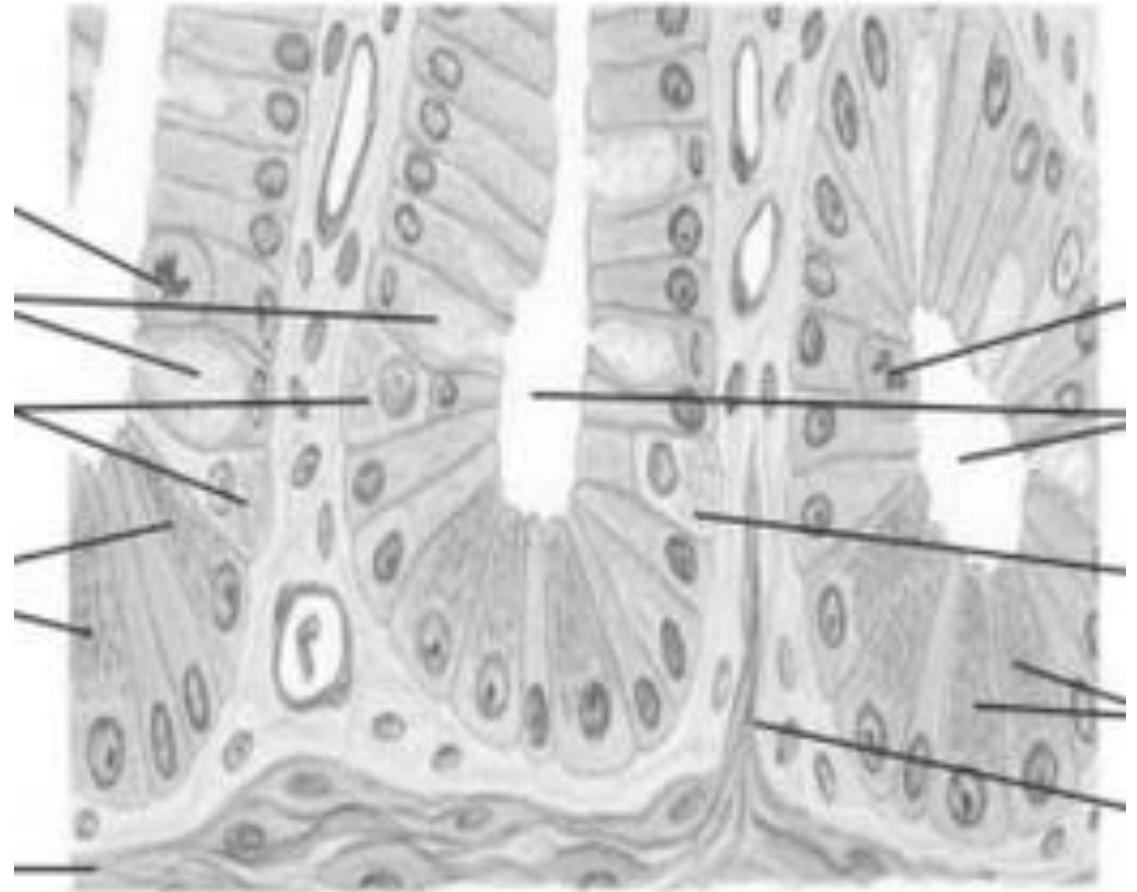


- Which histological feature is not describing the mucosa of the ileum?
- 1. Microfold cells line the epithelium over Peyer's patches.
- 2. The villi are short & finger like.
- 3. Peyer's patches occupy the whole circumference of the lamina propria.
- 4. Numerous goblet cells are present in the lining epithelium.

ANS:3

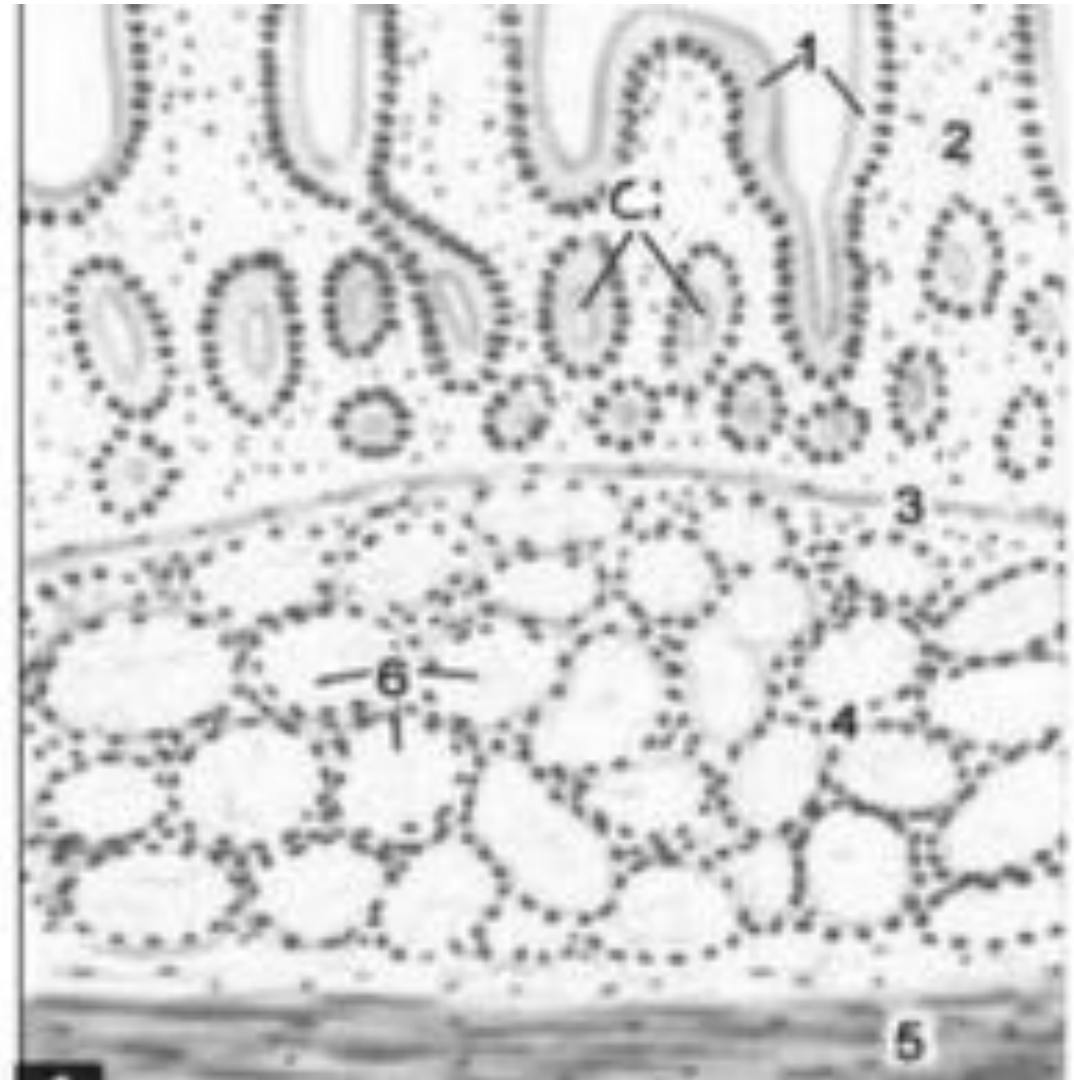
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- The attached figure includes a part of a crypt of Lieberkuhn, which ultrastructural adaptation matches its corresponding cell?
  - 1. Cell at A.....supranuclear Golgi apparatus.
  - 2. Cell at .....apical brush border.
  - 3. Cell at B... ..numerous lysosomes.
  - 4. Cell at D.....basal rER.

ANS:4



- Which statement describes the structures at 6?
- 1. They are restricted to the proximal segment of this part only.
- 2. They are protein secreting cells.
- 3. Their ducts open at the tip of structures at 1.
- 4. They are present in the lamina propria.

ANS:1



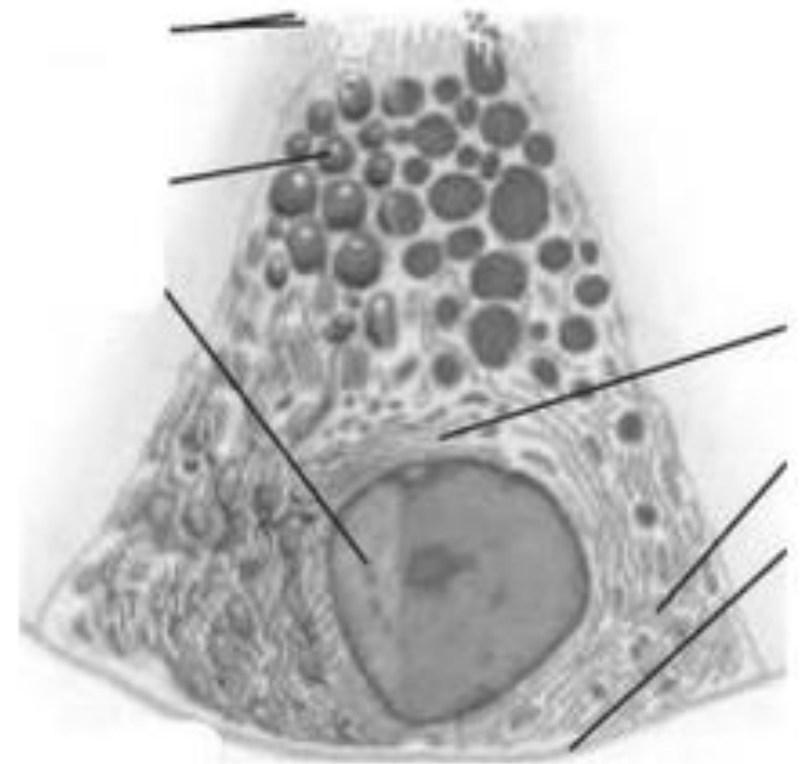
- Which cells line the intestinal villi of the duodenum?
- 1. Enterocytes & Goblet cells only.
- 2. Enterocytes only.
- 3. Enterocytes, Goblet cells & M cells.
- 4. Enterocytes, goblet cells& enteroendocrine cells.

ANS:4



- 
- Which of the following cells doesn't have ultrastructural features similar to the cell in the attached figure?
  - 1. Pancreatic acinar cell.
  - 2. Peptic cell.
  - **3. Enteroendocrine cell.**
  - 4. Paneth cell.

ANS:3



- Which statement differentiates between gastric rugae & plicae circularis?
- 1. Gastric rugae.....permanent folds of mucosa & submucosa.
- 2. Plicae circularis.....circular folds in the intestine.
- 3. Gastric rugae.....longitudinal folds of the smooth muscle fibers.
- 4. Plicae circularis.....folds in the mucosa & submucosa appear only in empty state

ANS: 2

- Which statement describes the histological structure of the gastric rugae?
- 1. They are circular folds that disappear during distension.
- 2. They are permanent gastric folds.
- 3. They are invagination of the mucosal surface into the lamina propria.
- 4. They are longitudinal folds of the mucosa & submucosa.

ANS:4