



HISTOLOGY
By Mutaz Sarrar

Large intestins

Q) Which statement is the best describing the histological structure of the large intestine?

- 1- The taenia coli are incomplete circular smooth muscle layer.
- 2- Paneth cells are found among the lining epithelium of the intestinal crypts.
- 3- The appendices epiploicae are present at the serosal surface.
- 4- The sacculations seen by the naked eye represents accumulation of adipose tissue at the outer surface.

ANS:3

Q) What is the cause of the saccular appearance of the colon?

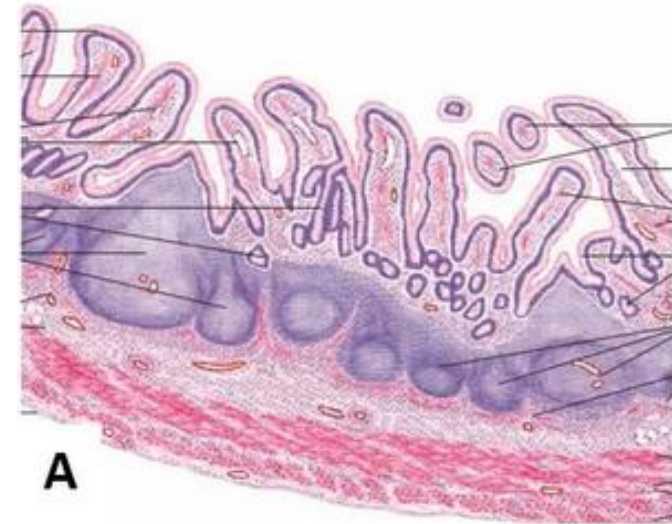
- 1. The presence of the plicae circularis.
- 2. The attachment of appendices epiploicae.
- 3. The arrangement of the longitudinal muscle fibers into three bands.
- 4. The insertion of the mesentery into the outer surface.

ANS:3

Q) How you can differentiate between the two histological sections in the opposite photos?

- 1. The crypts in section A are branched tubular.
- 2. Section B lacks the mesothelium.
- 3. The lymphoid nodules in section A are present on one side.
- 4. The musculosa shows tenia coli in section B.

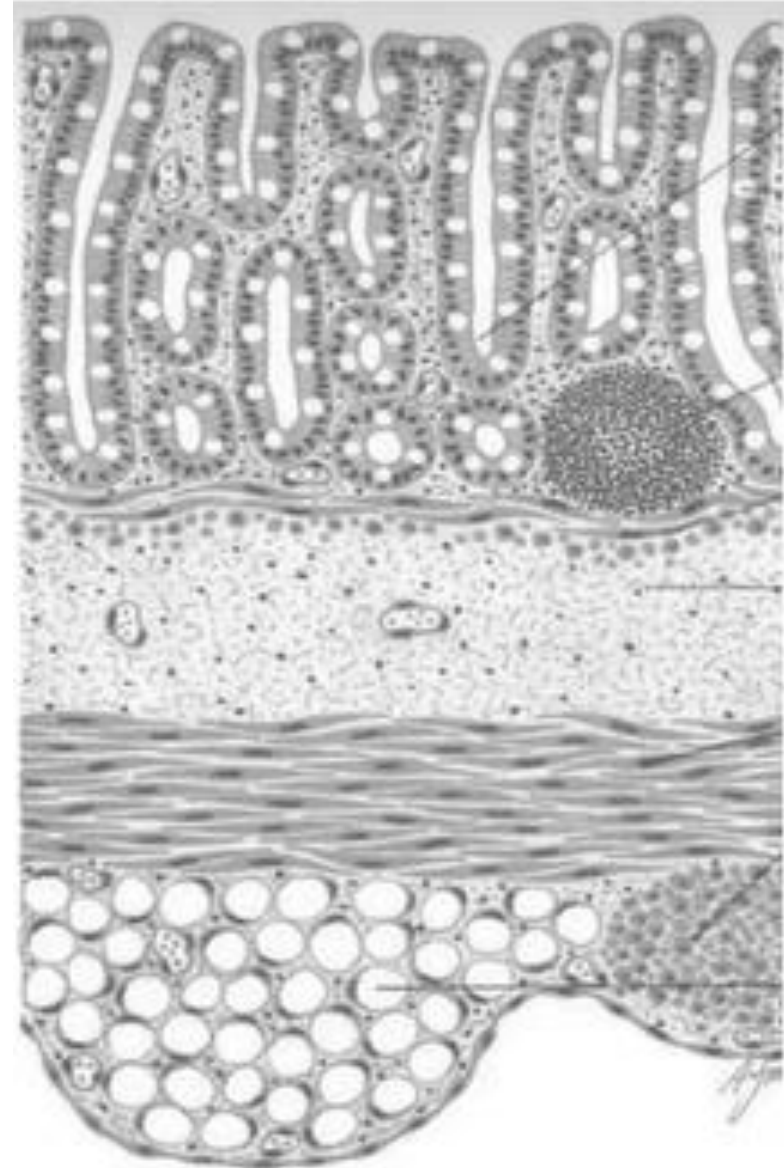
ANS:3



Q) What is the lining epithelium of the glands in the attached photo?

- 1. Numerous goblet cells, numerous enteroendocrine cells & few absorptive cells.
- 2. Few enteroendocrine cells, numerous goblet cells & enterocytes.
- 3. Numerous absorptive cells, few goblet cells & numerous enteroendocrine cells.
- 4. Enterocytes, numerous goblet cells & peptic cells.

ANS:2



Q) Which statement is not related to the columns of Morgagni?

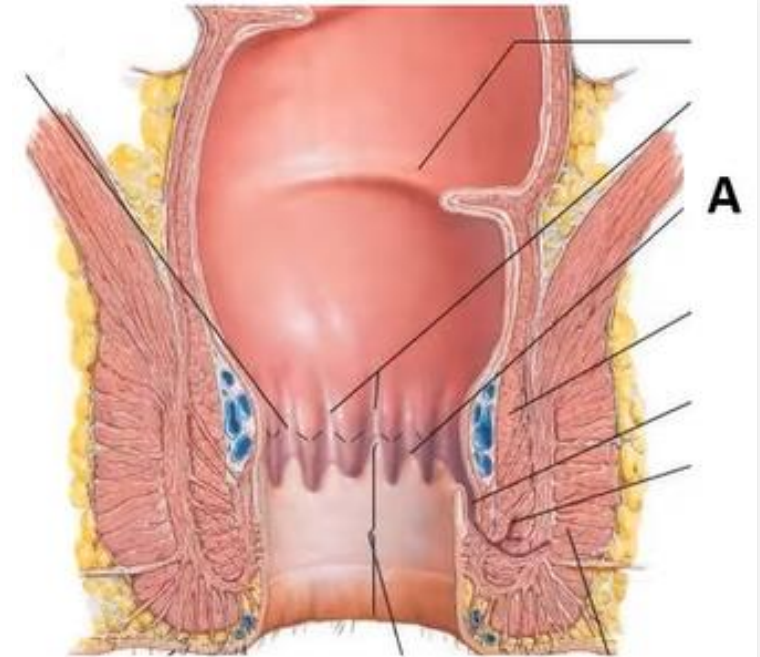
- 1. The epithelium changes to stratified columnar epithelium.
- 2. The external rectal venous plexus appears.
- 3. The muscularis mucosae fade out.
- 4. They are longitudinal mucosal folds.

ANS:2

Q) Which histological change occurs at the area marked by A?

- ~~1. The epithelium changes from columnar to stratified squamous.~~
- 2. The circumanal apocrine sweat glands appear.
- 3. The rectal glands appear..
- 4. The outer longitudinal muscle fibers are thickened to form the internal anal sphincter.

ANS:1



liver

Q) Which statement regarding the kupffer cells is correct?

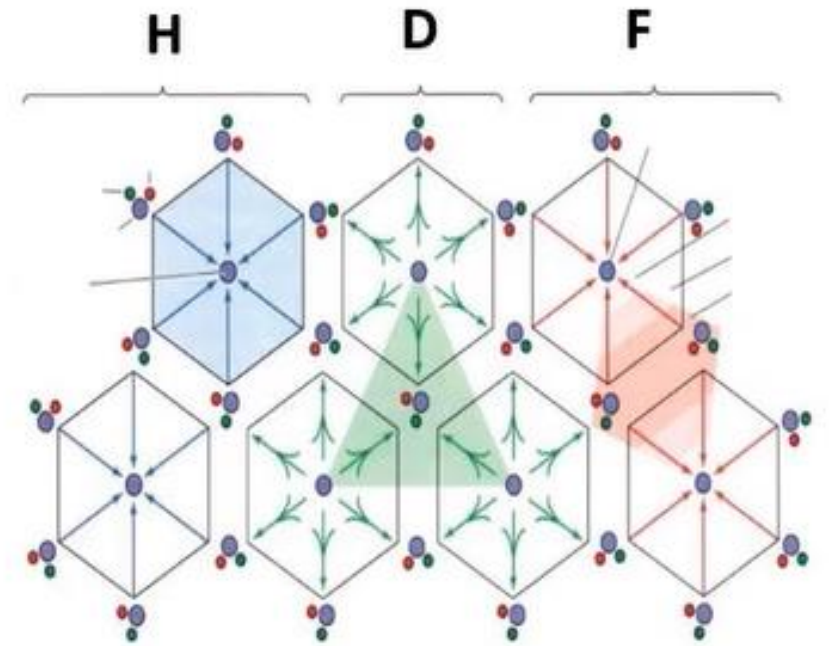
- 1- They phagocytose the aged RBCs.
- 2- They are considered as the hepatic stem cells in liver regeneration.
- 3- They have a long microvilli facing the perisinusoidal space.
- 4- They differentiate into myofibroblast in liver fibrosis.

ANS:1

Q) Which of the following hepatic lobulation describes the bile drainage from the hepatocytes into the bile duct?

- 1. H&D.
- 2. H only.
- 3. D only
- 4. H&F.

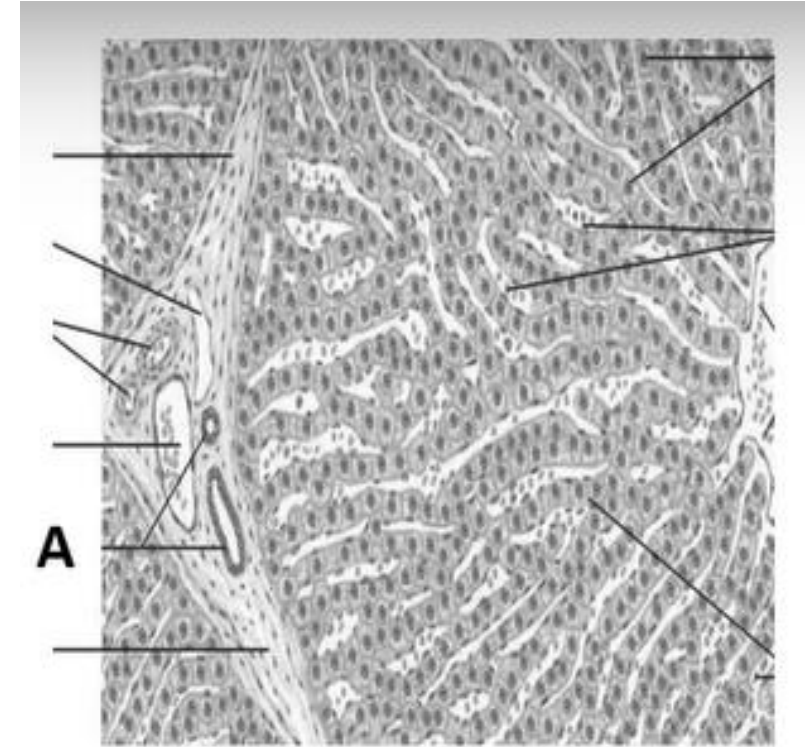
ANS:3



Q) In the attached figure, what is the lining epithelium of the structure at A?

- 1. Continuous simple squamous epithelium.
- 2. The adjacent hepatocytes.
- 3. Fenestrated simple squamous epithelium.
- 4. Simple cuboidal epithelium.

ANS:4



Q) What is the correct histological description of the hepatic sinusoid?

- 1. It is lined by fenestrated endothelium that is not covered by a diaphragm.
- 2. Its lumen is traversed by the processes of the hepatic stellate cells.
- 3. It encloses the bile canaliculus.
- 4. It is surrounded by a continuous basal lamina.

ANS:1

Q) Which sentence is not related to the intercellular side of the hepatocytes?

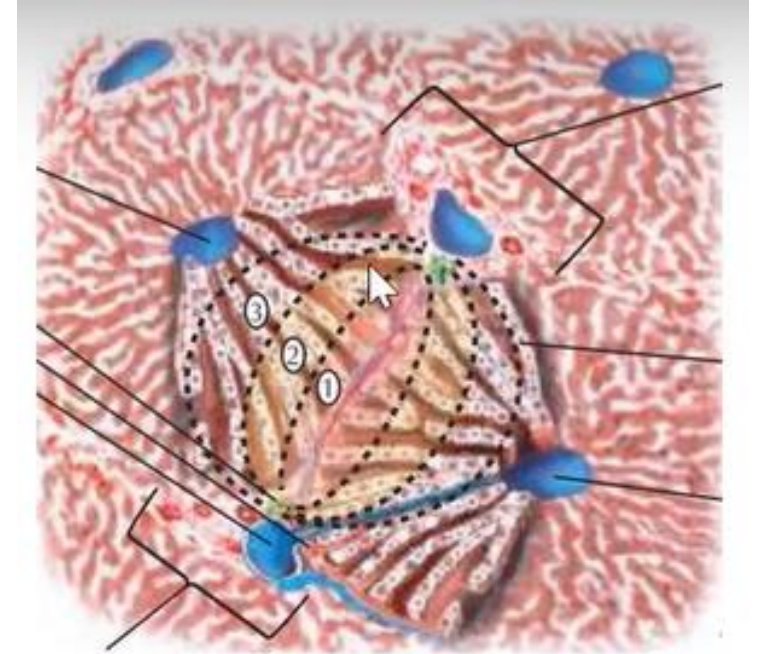
- 1. The hepatocytes bear short microvilli.
- 2. It faces the blood sinusoids.
- 3. It encloses the bile canaliculus.
- 4. The adjacent hepatocytes are connected by macula adherence.

ANS:2

Q) A 35-year old male is diagnosed with hepatitis C viral infection, which area/s in the attached figure ~~is/are the first to be infected by~~ HCV?

- 1. 3.
- 2. 1.
- 3. 2.
- 4. 2&3.

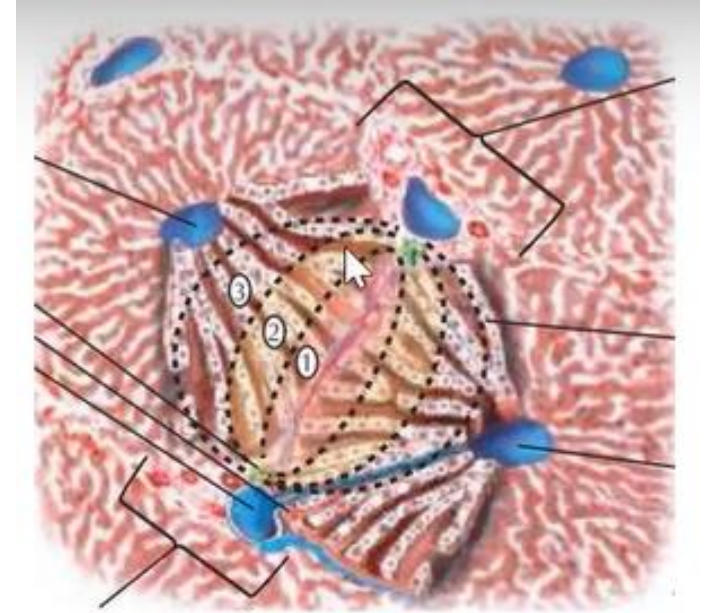
ANS:2



Q) A 35-year old male is diagnosed with bile duct occlusion, which area/s in the attached figure is/are the first to be affected by bile stasis?

- 1. 3.
- 2. 1.
- 3. 2.
- 4. 2&3.

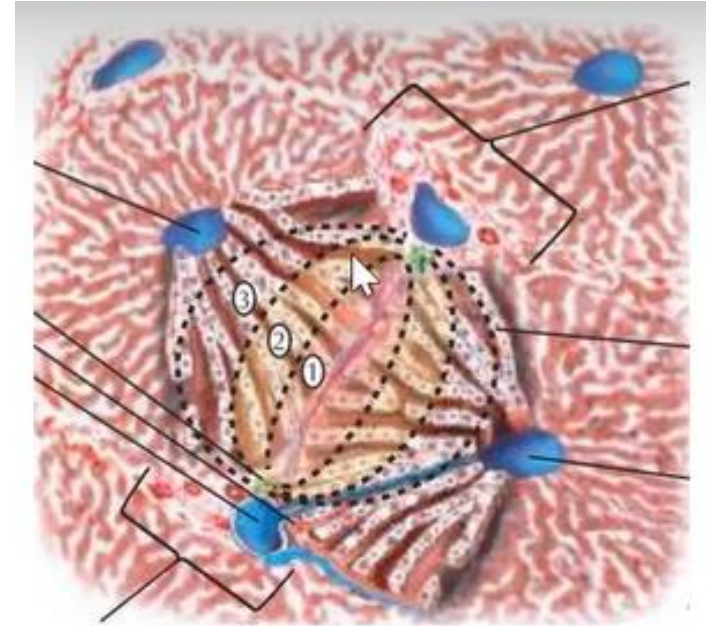
ANS:2



Q) Which zone/s is/are the first to regenerate after ischemic necrosis?

- 1. 3.
- 2. 1.
- 3. 2.
- 4. 2&3.

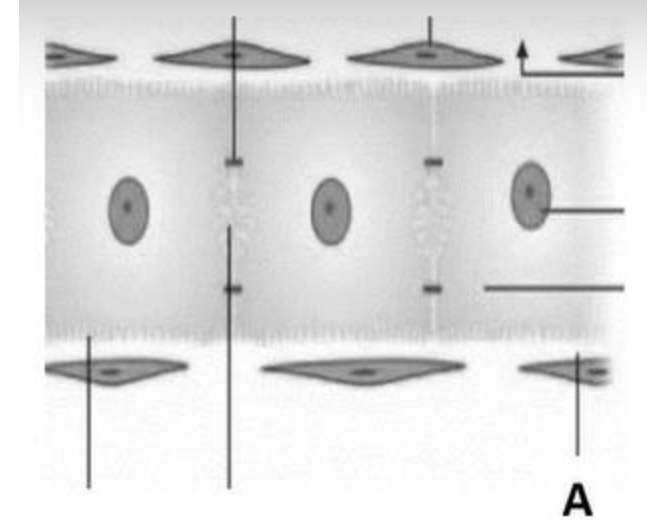
ANS:2



Q) In the area marked by A, which of the following structures are normally present?

- 1. Short microvilli of hepatocytes.
- 2. Elastic fibers.
- 3. Fat containing cells.
- 4. Myofibroblasts.

ANS:3



Q) Which structure-function adaptation of the hepatocytes is mismatched?

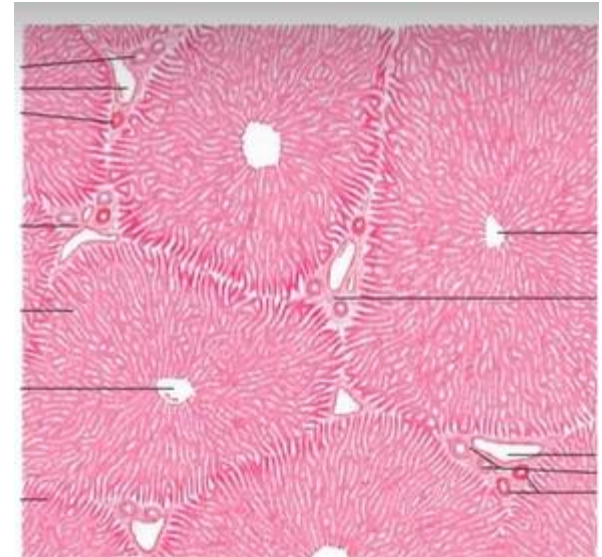
- 1. Peroxisome.....detoxification of toxic substances.
- 2. Golgi apparatus..... ..package of plasma proteins.
- 3. Glycogen granules.....energy supply.
- 4. Smooth endoplasmic reticulum.....synthesis of plasma proteins.

ANS:4

Q) Which structure is responsible for the eosinophilic appearance of the cells in the opposite diagram?

- 1. Rough endoplasmic reticulum.
- 2. Mitochondria.
- 3. Golgi apparatus.
- 4. Glycogen granules.

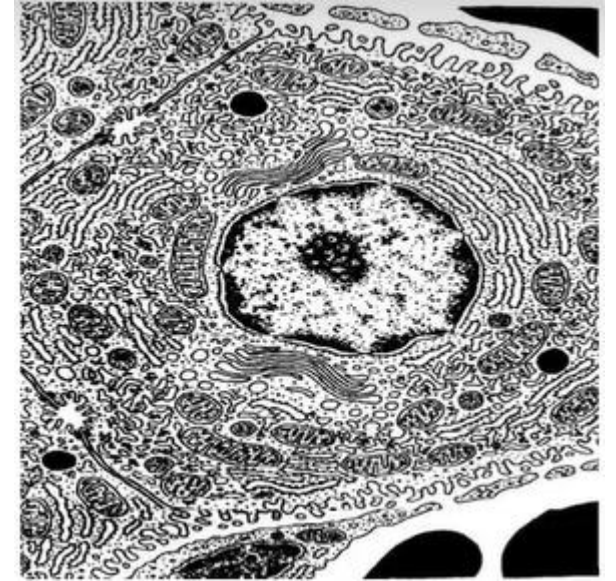
ANS:2



Q) What is the function of the cell in the attached figure?

- 1. Secretion of hydrochloric acid.
- 2. Storage of vitamin A.
- 3. Production of pepsinogen.
- 4. Synthesis of bile.

ANS:4



Q) Which statement is correctly describing the stroma of the liver?

- 1. The connective tissue septa are radiating from the porta hepatis.
- 2. The hepatocytes are arranged in anastomosing cords radiating from the central vein.
- 3. The connective tissue capsule is completely covered by a mesothelium.
- 4. The blood sinusoids are lined by fenestrated endothelium.

ANS:1

Gall bladder

Q) What is the lining epithelium of the cystic duct?

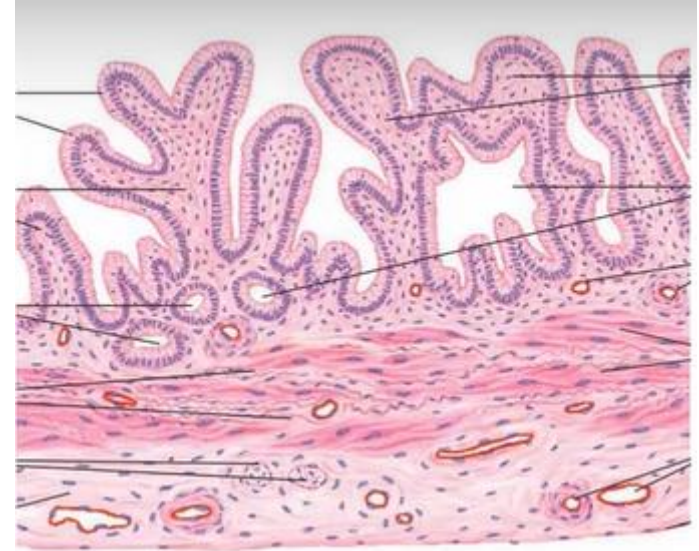
- 1. Simple cuboidal epithelium.
- 2. Simple columnar epithelium.
- 3. Pseudostratified columnar epithelium.
- 4. Two layers of cuboidal epithelium.

ANS:2

Q) In the attached figure, which structure is absent?

- 1. Microvilli of the lining cells.
- 2. Lamina propria.
- 3. Well distinct layers of the musculosa.
- 4. External connective tissue covering.

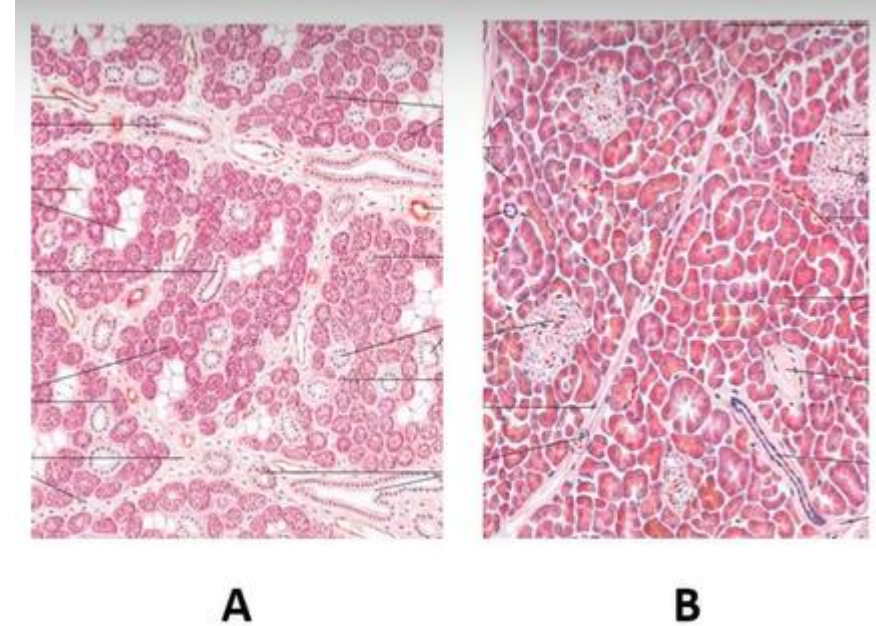
ANS:3



Q) What is the correct histological description of the organs in the attached diagrams?

- The acini of organ B are surrounded by myoepithelial cells.
- 2. The acini of organ A may acquire variable shapes.
- 3. The initial part of the duct system of organ A is found inside the acinar lumen.
- 4. The main duct of organ B have goblet cells in its lining epithelium.

ANS:4



Q) What is the lining epithelium of the ampulla of Vater?

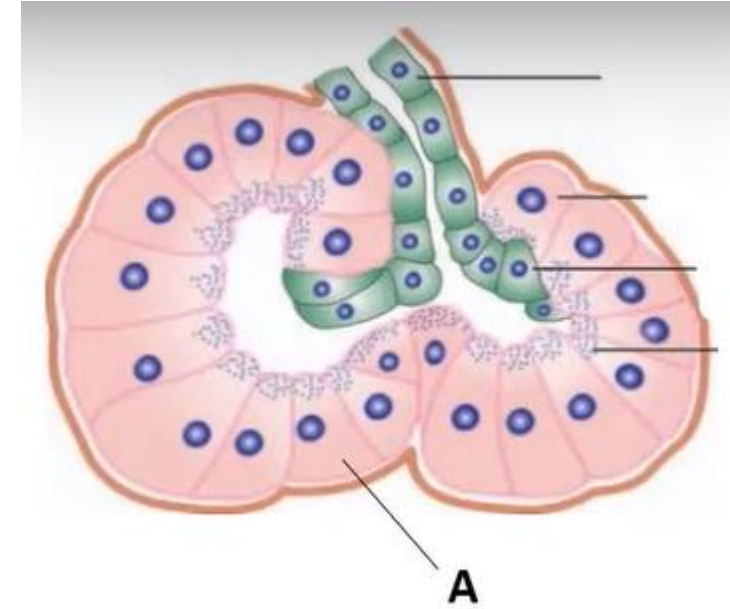
- 1. Simple columnar epithelium with goblet cells.
- 2. Simple cuboidal epithelium.
- 3. Pseudostratified columnar epithelium.
- 4. Non keratinized stratified squamous epithelium.

ANS:4

Q) What is the function of the cell at A in the attached figure?

- 1. Fat storing cell.
- 2. Mucous secreting cell.
- 3. Mixed seromucous cell.
- 4. Protein synthesizing cell.

ANS:4



THE END