

HISTOLOGY

Summary of GIT OSPE

Done by:

Saleh Almansour

Faisal Alshuwair

Ibrahim Abunohaiah





This file is only a revision of the main points in a question-based format.

Please refer to the original file first

Esophagus

Identify the organ ?

Esophagus

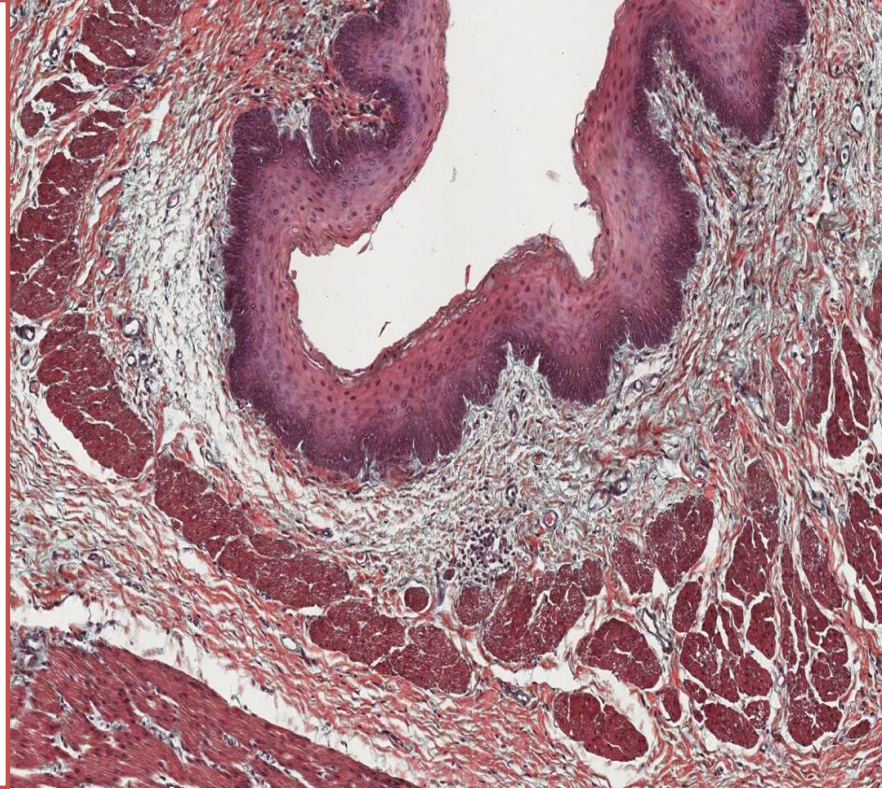
Identify the lining epithelium?

Non-Keratinized Stratified Squamous Epithelium.

Numerate the features ?

- 1- Mucosa
- 2- Submucosa: **glands.**
- 3- Muscularis externa (**2 layers**):
(inner circular – outer longitudinal)
- 4- Adventitia OR serosa:

- **Serosa:** **only** in the abdominal part of the esophagus.
- **Adventitia:** covers cervical & thoracic parts of esophagus.



Fundus of the stomach

Identify the organ ?

Fundus of stomach

Identify the lining epithelium?

Simple columnar mucus-secreting cells

Numerate the features ?

1- Mucosa : **Fundic glands:**

- **Short** pits and **Simple** or branched tubular glands.

- It is rich in **parietal & chief cells.**

2- Submucosa

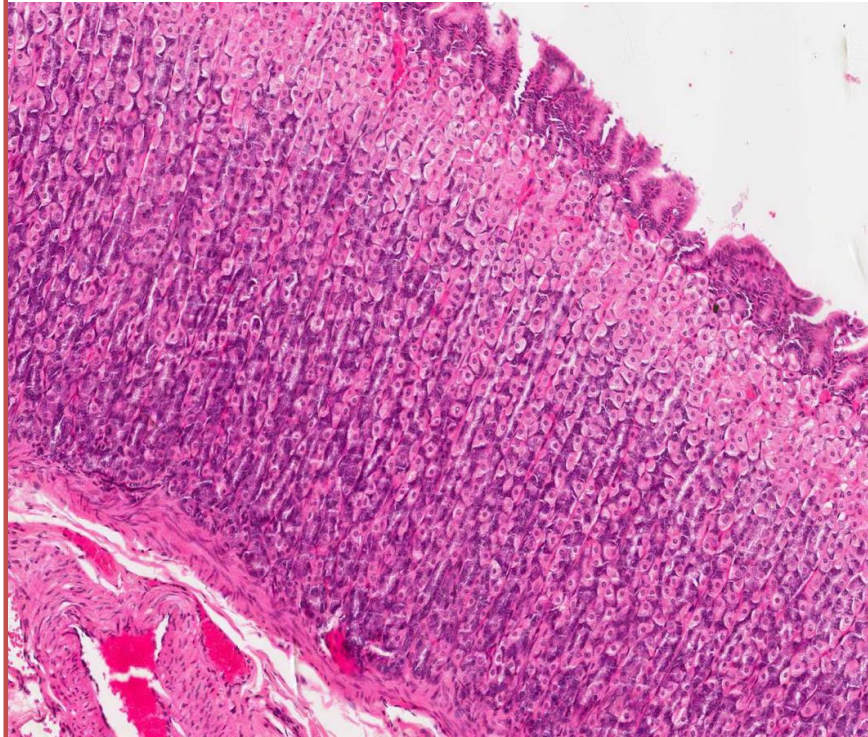
3- Muscularis externa (**3 layers**):

- Inner oblique.

- Middle circular.

- Outer longitudinal.

4- Serosa



Pylorus of the stomach

Identify the organ ?

Pylorus of the stomach

Identify the lining epithelium?

Simple columnar mucus-secreting cells

Numerate the features ?

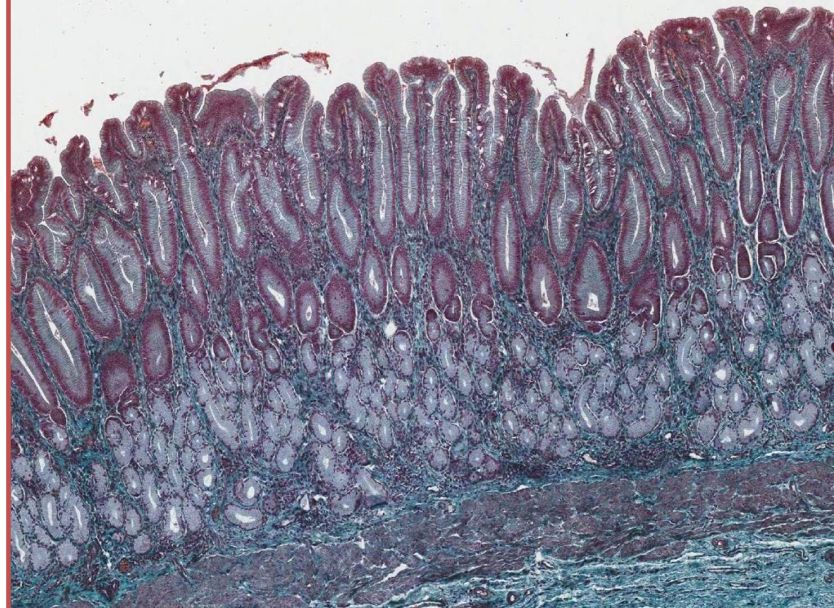
1- Mucosa : **Pyloric glands:**

- **Deep** pits and **branched** tubular glands.
- It is rich in **mucus neck cells** (dark cells with red nuclei).

2- Submucosa

3- Muscularis externa (**2 layers**)

4- Serosa



Duodenum

Identify the organ ?

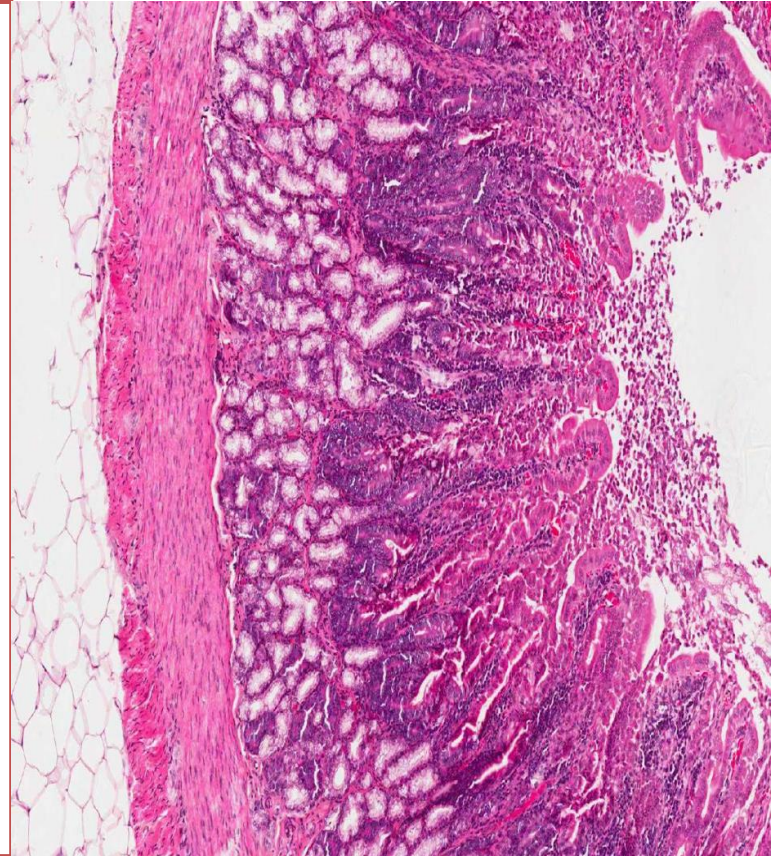
Duodenum

Identify the lining epithelium?

Simple columnar epithelium with goblet cells

Numerate the features ?

- 1- Mucosa : **shows intestinal villi & crypts**
- 2- Submucosa:
Contains **Brunner's glands** (secrete **mucus**).
- 3- Muscularis externa (**2 layers**):
 - Inner circular.
 - Outer longitudinal.
- 4- Serosa: **Only** the 2nd and 3rd parts are covered by adventitia. Upper part is covered by serosa .



Villi

Villus is a finger-like projection

Cells Covering the Villi:

- Surface columnar absorptive cells
- Goblet cells
- Enteroendocrine cells
- M cells

Crypts

Crypts are a simple tubular glands that open between villi

Composed of 5 cell types:

1. Columnar absorptive cells
2. Goblet cells
3. Paneth cells in small intestine
4. Enteroendocrine cells
5. Stem cells

Ileum

Identify the organ ?

Ileum

Identify the lining epithelium?

Simple columnar epithelium with goblet cells

Numerate the features ?

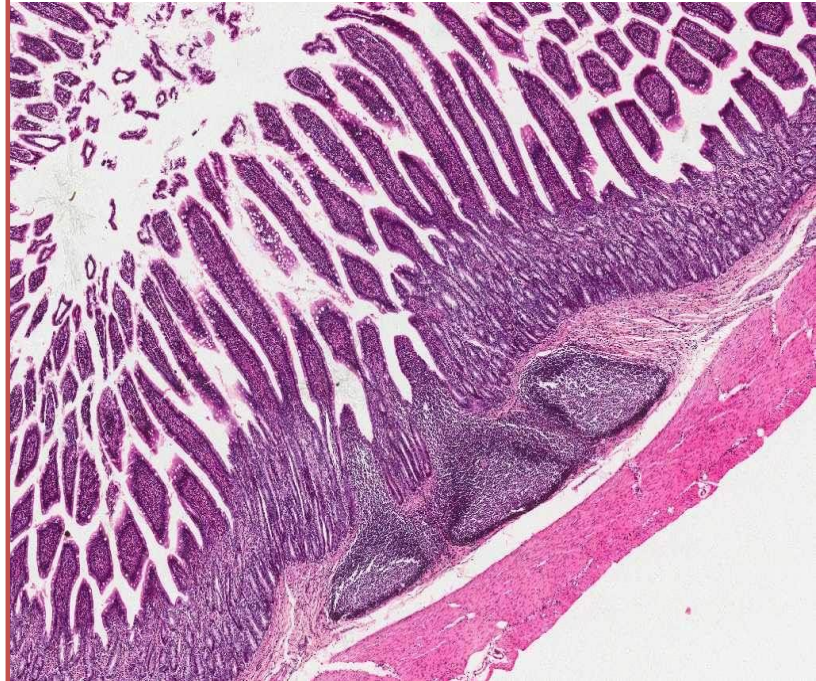
1- Mucosa : **shows intestinal villi & crypts**,
Lamina propria, has lymphoid nodules (**Peyer's patches**) that extend to the submucosa.

2- Submucosa

3- Muscularis externa (**2 layers**):

- Inner circular.
- Outer longitudinal.

4- Serosa



Colon

Identify the organ ?

Colon

Identify the lining epithelium?

Simple columnar epithelium with numerous goblet cells (secrete mucus).

Numerate the features ?

1- Mucosa : shows only crypts.

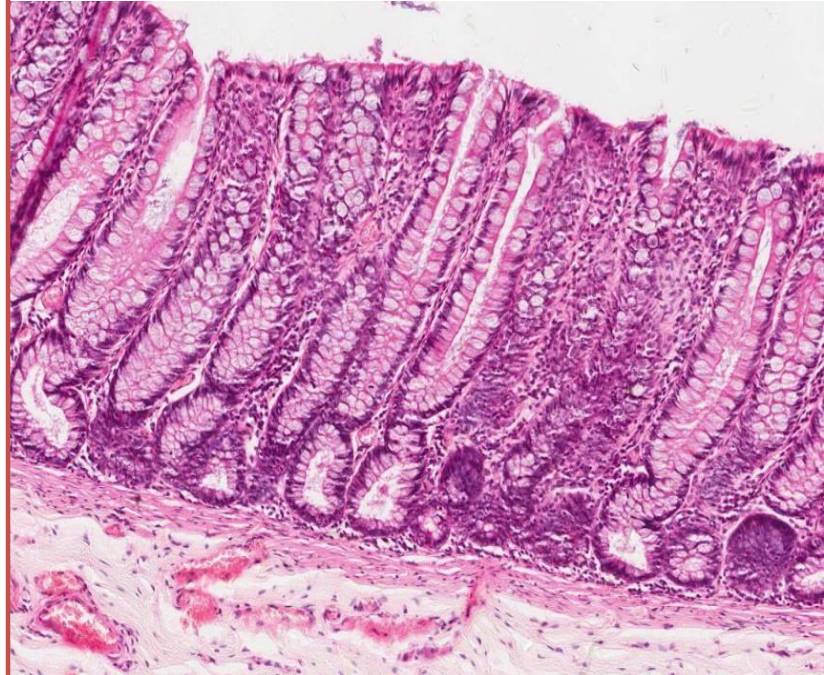
Lamina propria:

Lymphatic nodules are frequent and solitary
(No Paneth cells).

2- Submucosa

3- Muscularis externa (2 layers) (Teniae coli).

4- Serosa and presence of appendices epiploicae



Appendix

Identify the organ ?

Appendix

Identify the lining epithelium?

Simple columnar epithelium with numerous goblet cells (secrete mucus).

Numerate the features ?

1- Mucosa : (shows only crypts)

Lamina propria:

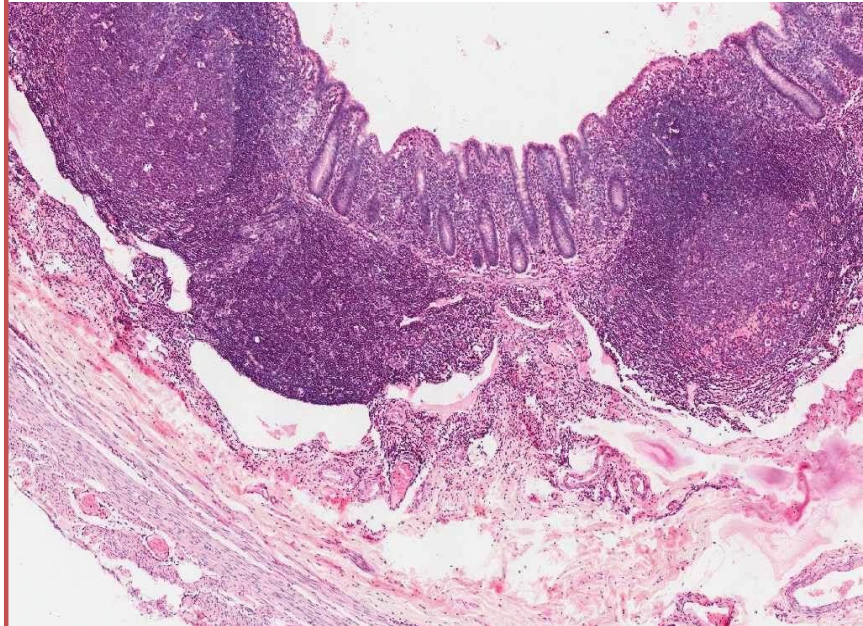
More lymphatic nodules are all around the circumference (No Paneth cells).

2- Submucosa

3- Muscularis externa (2 layers):

- Inner circular.
- Outer longitudinal.

4- Serosa



Liver

Identify the organ ? Liver

Identify ?

Classic hepatic lobule.

Central vein.

Portal area.

Identify?

Portal area

What are the content in portal area ?

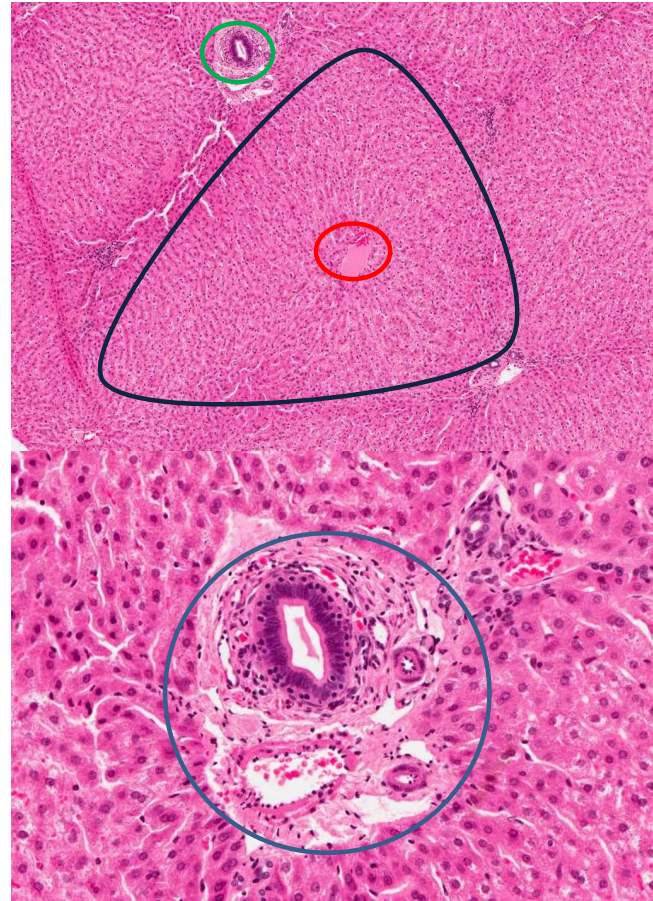
1. Bile duct.
2. Branch of portal vein.
3. Branch of hepatic artery.
4. C.T.

Numerate some cell found in liver in general ?

-Kupffer Cell

-Fat Storing Cells (Ito Cells)in space of Disse

-Hepatocyt



Gall bladder

Identify the organ ?

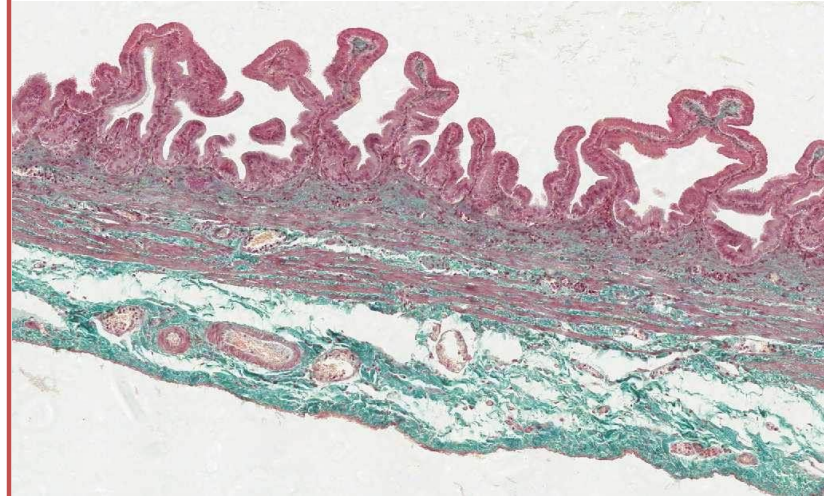
Gall bladder

Identify the lining epithelium?

Simple columnar epithelium

Numerate the features ?

- 1- Mucosa (Highly **folded** mucosa)
- 2- Muscularis
- 3- Serosa or adventitia:
 - **Adventitia:**
This layer which attached to the liver.
 - **Serosa:**
In the unattached region (**Fundus** of gall bladder).



Pancreas

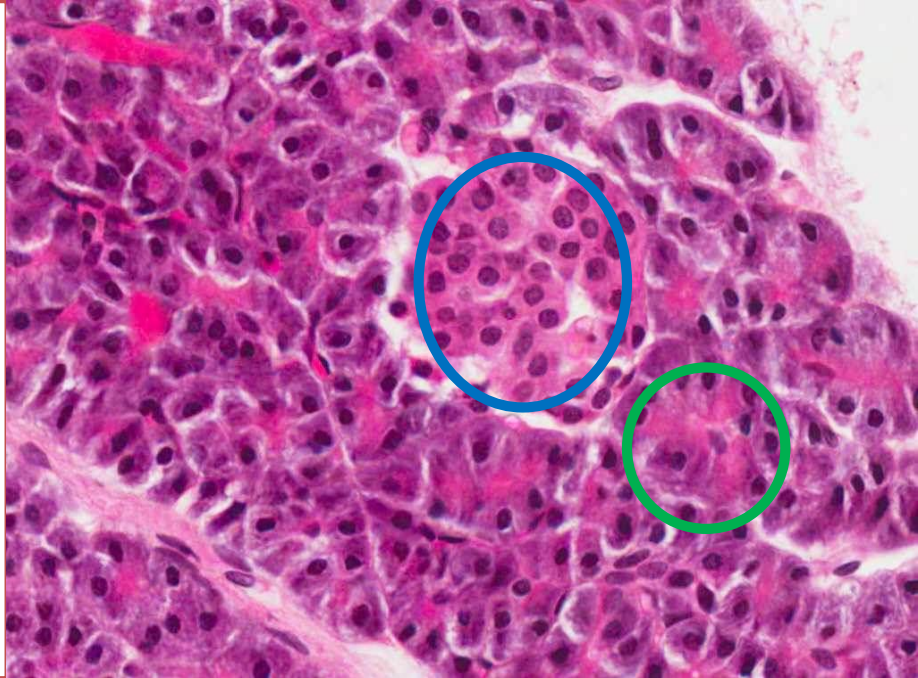
Identify the organ ?

Pancreas

Identify the circled structures?

Islets of Langerhans

Pancreatic acini



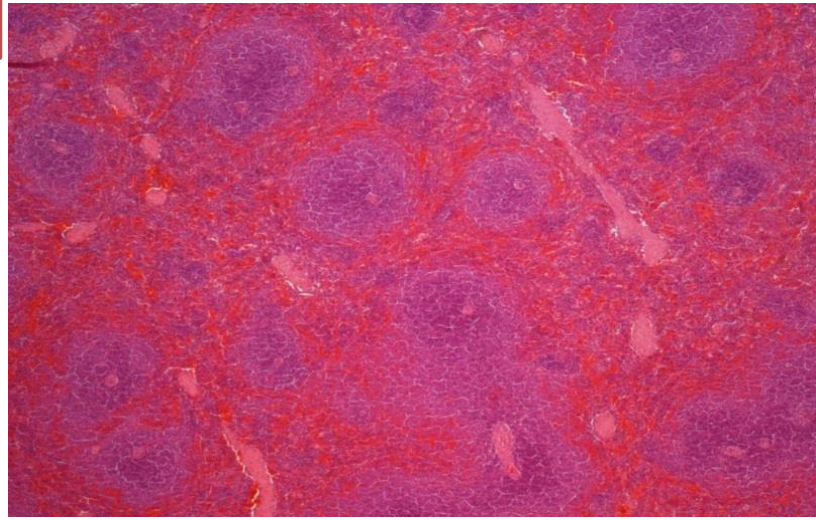
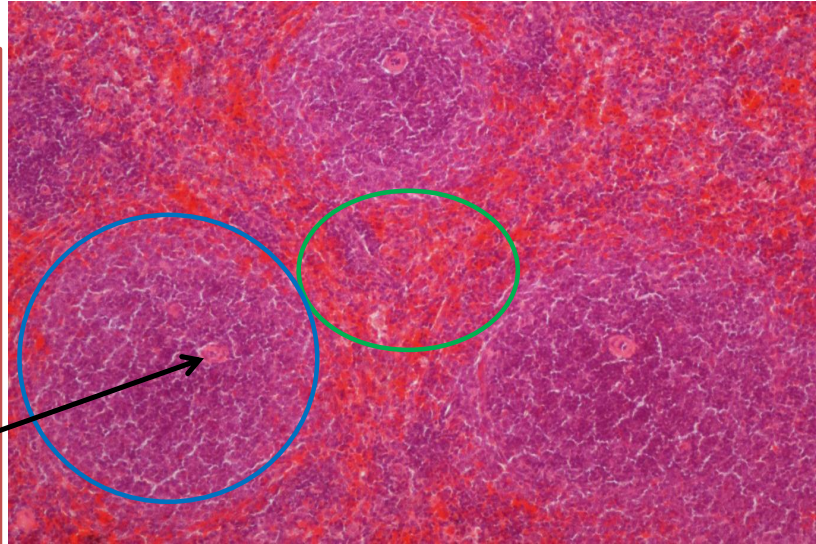
Spleen

Identify the organ ?

Spleen

Identify the circled structures?

- White pulp.
- Lymphoid nodules.
- **Acentrically** located **central artery** (central arteriole).
- Red pulp



Good luck!