15/MHS06/005 MEDICAL LABORATORY SCIENCE MLS 408 HISTOPATHOLOGY

QUESTION.

In a tabular form only, compare and contrast sections of the Gastrointestinal Tract.

ANSWER.

DIFFERENCE.

LAYERS	SUBLAY ERS	SECTIONS OF THE GASTROINTESTINAL TRACT									
		ORAL CAVITY	OESPHA GUS.	STOMA CH	SMALL INTESTINE		LARGE INTESTI	APPEND IX	COLON	ANAL CANAL	
					DUODE NUM	JEJUNU M	ILEUM	NE			
SEROSA / ADVENTI TA			Serosa covers only abdomin al part of the oesopha gus and the rest of oesopha geal tube is covered by adventitia	Is a thin serous membran e made of simple squamou s epithelial tissue and areolar connectiv e tissue. It has a smooth slippery surface and it secretes a thin watery section known as serous fluid	Generally if its part of the digestive part that is free to move then it is covered by Serosa and if its relatively rigidly fixed then it is covered. By adventitia	The Serosa forms the outermos t layer of the jejunum and functions as the skin of the intestine and it is made up of simple squamou s epitheliu m .	The ileum is entirely covered by Serosa from the outside	The Serosa forms the outer most layer, it is a thin layer of simple squamou s epithelial tissue that secretes watery serous fluid to lubricate the surface of the large intestine.	The appendix is containe d within the v visceral peritoneu m that forms the Serosa.	This is present at the outer layer of the colon but its not found in the rectum.	
	OUTER LONGITU DINAL	Absent		Develope d along curvature s (continuo us with layer in oesopha gus)	Consists of an outer longitudi nal musculat ure between which the Auerbach 's plexus lies	Has a outer longitudi nal layer of smooth musculat ure between the Auerbach 's plexus lies	Compose d of the traditiona I inner circular layer and outer longitudi nal layer of the smooth muscle cells.	The longitudi nal layer is macrosc opically thickene d into three longitudi nal belts .	Contains outer longitudi nal layers and prominen t ganglion cells.	The outer longitudi nal musculat ure is practicall y only found in the taeniae.	Present of outer longitudi nal .
MUSCU LARIS PROPRI A	INNER CIRCULA R	Absent		Well develope d in the cardiac region	Consists of inner circular which the Auerbach 's plexus lies	Has an inner circular where the Auerbach 's plexus lies	May be modified in valves	ls compose d of inner circular smooth muscle layer	Contains the inner circular layers and prominen t ganglion cells.	The inner circular musculat ure of the Musculari s is strongly pronounc ed.	Circular layer is thicker in area of the anal canal which creates the inner anal sphincter

SUBMU		The submuco sa contains minor salivary glands in the area of the hard palate is no submuco sal layer.	The submuco sa is highly vascular, and contains loose connective tissue. It contains oesopha geal glands, that secrete mucus to help ease the passage of swallowed food.	Is made up of various connective tissues, blood vessels, and nerves.the blood supply of the submuco sa provides nutrients to the wall of the stomach.	The duodenu m is readily distinguis hed from other regions of the small intestine by the presence of submuco sal Brunner's glands, which may pack the submuco sa so complete ly the connective tissue is obscured.	The submuco sa is compose d of loose connective tissue.	This contains blood vessels, lymph nodes and the Meissner's plexus.	Is a largely collageno us layer with occasion al aggregati ons of MALT and large vasculature and lymphatic	The submuco sa with prominen t lymphoid tissue beneath which are the inner circular and outer longitudi nal	Is a layer of connective tissue that surround s the mucosa. It contains mucous glands, blood vessels, lymph vessels and nerves.	The connectiv e tissue of the submuco sa changes to the dense fibrous tissue of dermis
MUCOS A	MUSCUL ARIS MUCOS A	A Musculari s mucosae is not present	is a thin, double layer of smooth muscle, more substanti al in the lower part of the oesopha gus.	This appears to be thin and there is prominen t layer of smooth muscle .	Maybe disrupted by the submuco sal glands which thus appears to extend into the lamina propria.	This is a thin flat layer of smooth muscle cells which lies just under the Botton edge of crypts and forms a border of the small intestine mucosa.	Consists off a muscle layer	This is a flat surface which lies just beneath the terminal portions of colonic glands and is compose d of thin layer of smooth muscle cells .	The musculari s mucosae is thin.	This has a thin musculari s mucosae	The musculari s mucosae ends at recto-anal junction.
	LAMINA PROPRIA	The lamina propria is unspecial ised.	contains lymphatic capillarie s, blood capilaries , and loose connectiv e tissue	Occupies the cores of vill, envelops crypts, and includes numerou s cells.	Is embedde d with connectiv e tissue layer	The epithelial layer is followed by a cognitive tissue layer	Consist of connectiv e tissue layers		This surround s crypts and contains many lymph nodes.	It surround s crypts (interstice s between them)	This is unspecial ised with transition to dermis
MUCOS A	EPITHELI UM	This consists of stratified squamou s epitheliu m which may be keratinise d and underline d by connectiv e tissue layer.	Has tough stratified squamou s epitheliu m without keratin.se rves a protectiv e function against abrasive effects on food.	Consist of simple columnar epitheliu m which consists of mucus-secreting cells for protection against self digestion.	Consists of simple columnar epitheliu m, a connectiv e tissue layer and smooth muscle layer.	The mucosa is lined by simple columnar epitheliu m towards the lumen.	It is lined by simple columnar epitheliu m which consists of enterocyt es and goblets cells.	It is lined with simple columnar epitheliu m and has goblet cells.	It is made up of simple columnar epithelial tissue	is lined by a simple columnar epitheliu m with a thin brush border and numerou s goblet cells	Has a protective enonkeratinized stratified squamous with transition of the epidermis (keratinis ed)