

HISTOLOGY

GIT - MNU

LECTURE 2 - MCQ



Harvard
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DR

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SEM

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1	<p><u>The mucosa of the small intestine shows all the following macroscopic features EXCEPT:</u></p> <ul style="list-style-type: none">a) Circular permanent folds called plicae circularesb) Velvet-like appearance due to villic) Openings of intestinal crypts as minute holesd) Rugae that disappear on distensione) Intestinal villi projecting into the lumen	D
2	<p><u>The epithelium of the small intestine mucosa is best described as:</u></p> <ul style="list-style-type: none">a) Stratified squamous non-keratinized covering the villib) Stratified cuboidal epithelium lining the cryptsc) Simple columnar epithelium covering villi and lining cryptsd) Transitional epithelium with dome-shaped cellse) Pseudostratified columnar epithelium with cilia	C
3	<p><u>The lamina propria (corium) of the small intestine contains:</u></p> <ul style="list-style-type: none">a) Only fibroblasts and collagen fibersb) Blood vessels, lymphatics, lymphocytes, plasma cells, and lymphoid folliclesc) Only mucous glands and ductsd) Hyaline cartilage and seromucous glandse) Adipose tissue without lymphocytes	B
4	<p><u>Peyer's patches are characteristic lymphoid aggregations found mainly in:</u></p> <ul style="list-style-type: none">a) Duodenum mucosa onlyb) Ileum, in corium and sometimes extending into submucosac) Jejunum onlyd) Large intestine mucosae) Appendix only	B
5	<p><u>Brunner's glands are located in the:</u></p> <ul style="list-style-type: none">a) Submucosa of duodenum, secreting alkaline mucusb) Lamina propria of jejunum, secreting enzymesc) Serosa of ileum, secreting bile saltsd) Musculosa of caecum, secreting acide) Mucosa of colon, secreting pepsin	A



6	<p><u>The muscularis externa (musculosa) of the small intestine consists of:</u></p> <ul style="list-style-type: none">a) Inner longitudinal and outer circular smooth muscleb) Inner oblique, middle circular, and outer longitudinal musclec) Inner circular and outer longitudinal smooth muscled) Only a single layer of skeletal musclee) Alternating layers of striated and smooth muscle	C
7	<p><u>The serosa of the small intestine is derived from the peritoneum and is composed of:</u></p> <ul style="list-style-type: none">a) Stratified squamous keratinized epithelium with dense connective tissueb) Simple squamous mesothelium with subserosal loose connective tissue, blood vessels, and lymphaticsc) Transitional epithelium with hyaline cartilaged) Dense irregular connective tissue with sebaceous glandse) Multilayered cuboidal epithelium with adipose tissue	B
8	<p><u>Intestinal villi are defined as:</u></p> <ul style="list-style-type: none">a) Plicae circulares folds that disappear on distensionb) Finger-like projections of mucosa extending into the lumen of intestinec) Barrel-shaped crypts found in colon onlyd) Lymphoid nodules projecting into intestinal lumene) Vascular folds of serosa surrounding Peyer's patches	B
9	<p><u>The villous epithelium of the small intestine is composed mainly of:</u></p> <ul style="list-style-type: none">a) Stratified squamous non-keratinized epitheliumb) Simple cuboidal cells with ciliac) 90% simple columnar absorbing cells, 9.5% goblet cells, 0.5% enteroendocrine cellsd) Transitional epithelium with dome-shaped cellse) Pseudostratified ciliated columnar epithelium	C
10	<p><u>The brush border of enterocytes consists of:</u></p> <ul style="list-style-type: none">a) Thick keratinized microvillib) ~ 3000 acidophilic striated microvilli per cell rich in alkaline phosphatasec) Sparse flagella surrounded by mucind) Pseudopodia specialized for phagocytosise) Cilia with dynein arms for motility	B



11	<p>The basal border of enterocytes is characterized by:</p> <ul style="list-style-type: none">a) Tight junctions forming a permeability barrierb) Hemidesmosomes attaching cells to lamina propria connective tissuec) Desmosomes joining adjacent absorptive cellsd) Vacuolated cytoplasm containing mucin granulese) Dense bundles of collagen fibers	B
12	<p>Which of the following is NOT a function of enterocytes?</p> <ul style="list-style-type: none">a) Secretion of lactase, sucrase, and isomaltaseb) Absorption of useful nutrientsc) Secretion of mucin granules to lubricate intestinal contentd) Hydrolysis of disaccharidese) Uptake of amino acids and monosaccharides	C
13	<p>The goblet cells of intestinal villi are best described as:</p> <ul style="list-style-type: none">a) Flat squamous cells with no secretory granulesb) Columnar cells with acidophilic apical granulesc) Goblet-like cells with basal nucleus, expanded apical cytoplasm containing mucin granulesd) Cuboidal cells with vacuolated cytoplasm but no nucleuse) Multinucleated giant cells with lipid vacuoles	C
14	<p>The main function of goblet cells in the small intestine is:</p> <ul style="list-style-type: none">a) Secretion of enzymes for protein digestionb) Phagocytosis of bacteria and cell debrisc) Secretion of mucus to lubricate intestinal content and protect mucosa from bacterial invasiond) Active absorption of glucose and amino acidse) Production of bile salts for fat emulsification	E
15	<p>Enteroendocrine cells in the small intestine constitute approximately:</p> <ul style="list-style-type: none">a) 20% of villous cellsb) 10% of crypt cellsc) 0.5% of villous cells and 1% of crypt cellsd) 50% of total mucosal cellse) Only found in colon crypts	C



16	<p><u>Which of the following enteroendocrine cells secretes secretin?</u></p> <ul style="list-style-type: none">a) D-cellsb) I-cellsc) G-cellsd) S-cellse) N-cells	D
17	<p><u>The hormone motilin, which regulates gastrointestinal motility, is secreted by:</u></p> <ul style="list-style-type: none">a) Mo-cellsb) E-cellsc) K-cellsd) G-cellse) D-cells	A
18	<p><u>Enteroendocrine I-cells secrete which hormone?</u></p> <ul style="list-style-type: none">a) Somatostatinb) Gastrinc) Cholecystokinin (CCK)d) Motiline) Neurotensin	C
19	<p><u>Which statement BEST describes intestinal crypts of Lieberkühn?</u></p> <ul style="list-style-type: none">a) They are gastric pits located in the stomach fundus onlyb) They are tubular glands extending from the base of villi to muscularis mucosa, 100-200 μm in lengthc) They are lymphoid follicles present in the ileum onlyd) They are circular folds responsible for villus shapee) They are serous glands secreting alkaline mucus	B
20	<p><u>Which of the following cells are ABSENT from the crypts of the large intestine but present in small intestine crypts?</u></p> <ul style="list-style-type: none">a) Goblet cellsb) Columnar absorptive cellsc) Paneth cellsd) M-cellse) Stem cells	C



21	<p><u>The main function of Paneth cells is:</u></p> <ul style="list-style-type: none">a) Secretion of mucus for lubricationb) Production of digestive enzymes lactase and sucrasec) Secretion of lysozyme with antibacterial effect, aided by zinc-rich granulesd) Presentation of antigens to T-cellse) Secretion of gastrin to stimulate HCl secretion	C
22	<p><u>M-cells (microfold cells) are mainly located in:</u></p> <ul style="list-style-type: none">a) Gastric pits of stomachb) Villous epithelium of jejunum onlyc) Over Peyer's patches in ileum within intestinal cryptsd) Brunner's glands of duodenume) Serosa covering large intestine	C
23	<p><u>The function of M-cells in intestinal mucosa is:</u></p> <ul style="list-style-type: none">a) Absorption of carbohydrates and amino acidsb) Secretion of mucus to protect intestinal liningc) Transport of antigens by endocytosis to lymphocytes and macrophages in lamina propriad) Secretion of lysozyme for antibacterial effecte) Secretion of alkaline phosphatase enzymes	C
24	<p><u>A researcher finds intestinal cells that are dome-shaped with basal cavities packed with lymphocytes and macrophages. These are most likely:</u></p> <ul style="list-style-type: none">a) Goblet cellsb) Enterocytesc) Paneth cellsd) M-cellse) D-cells	D
25	<p><u>Which of the following best describes the villi of the duodenum?</u></p> <ul style="list-style-type: none">a) Tongue-shaped, long and slenderb) Broad and leaf-likec) Short or absent over Peyer's patchesd) Completely absente) Branched with lymphoid nodules	B



26	<p><u>The jejunal villi are typically:</u></p> <ul style="list-style-type: none">a) Long slender villi with Peyer's patches underneathb) Tongue-shaped villic) Leaf-like villi with Brunner's glands beneathd) Absent villi replaced by cryptse) Club-shaped villi with goblet cells only	B
27	<p><u>Peyer's patches are a histological hallmark of the:</u></p> <ul style="list-style-type: none">a) Duodenumb) Jejunumc) Ileumd) Colone) Stomach	C
28	<p><u>Brunner's glands are found specifically in the submucosa of the:</u></p> <ul style="list-style-type: none">a) Ileumb) Duodenumc) Jejunumd) Colone) Appendix	B
29	<p><u>Goblet cells are most numerous in the:</u></p> <ul style="list-style-type: none">a) Duodenumb) Jejunumc) Ileumd) Esophaguse) Stomach	C
30	<p><u>M-cells are most abundant in which part of the small intestine?</u></p> <ul style="list-style-type: none">a) Over Peyer's patches in the ileumb) In Brunner's glands of duodenumc) In jejunal villid) In colon cryptse) In gastric pits	A



31	<p><u>Which of the following is NOT a function of the small intestine?</u></p> <ul style="list-style-type: none">a) Complete the process of food digestionb) Absorption of useful products into blood and lymphc) Secretion of mucus to lubricate food and stoold) Secretion of gastrointestinal hormonese) Storage and concentration of bile	E
32	<p><u>Plicae circulares increase the absorptive surface area by approximately:</u></p> <ul style="list-style-type: none">a) 2-foldb) 3-foldc) 10-foldd) 20-folde) 600-fold	B
33	<p><u>Intestinal villi increase the absorptive surface area by approximately:</u></p> <ul style="list-style-type: none">a) 2-foldb) 3-foldc) 10-foldd) 20-folde) 50-fold	C
34	<p><u>Microvilli on enterocytes increase the absorptive surface area by about:</u></p> <ul style="list-style-type: none">a) 3-foldb) 5-foldc) 10-foldd) 20-folde) 100-fold	D
35	<p><u>The total length of the large intestine is approximately:</u></p> <ul style="list-style-type: none">a) 6 metersb) 1.8 metersc) 50 cmd) 10 meterse) 25 cm	B



36	<p><u>Which of the following correctly lists the parts of the large intestine?</u></p> <ul style="list-style-type: none">a) Caecum, appendix, colon, rectum, anal canalb) Duodenum, jejunum, ileumc) Stomach, caecum, colon onlyd) Colon, stomach, anuse) Appendix, duodenum, jejunum	A
37	<p><u>The large intestine is described as the:</u></p> <ul style="list-style-type: none">a) Narrowest part of digestive canalb) Widest part of digestive canalc) Longest part of digestive canald) Shortest and thinnest part of digestive canale) Strongest muscular part of digestive canal	B
38	<p><u>Which of the following is present in the small intestine but absent in the large intestine?</u></p> <ul style="list-style-type: none">a) Circular folds and villib) Goblet cellsc) Crypts of Lieberkühnd) Simple columnar epitheliume) Lymph nodules	A
39	<p><u>The crypts of Lieberkühn in the large intestine are typically:</u></p> <ul style="list-style-type: none">a) Short and fewb) Long and numerousc) Absentd) Found only in caecume) Found only in rectum	B
40	<p><u>Paneth cells are present in:</u></p> <ul style="list-style-type: none">a) Crypts of large intestine onlyb) Crypts of small intestine onlyc) Both small and large intestined) Serosa of intestinee) Muscularis mucosa	B



41	<p><u>Which of the following statements about goblet cells is correct?</u></p> <ul style="list-style-type: none">a) They are absent in both small and large intestineb) They are few in small intestine but numerous in large intestinec) They are numerous in small intestine but absent in large intestined) They secrete hydrochloric acid in large intestinee) They are found only in stomach pits	B
42	<p><u>Lymph nodules are more numerous in the:</u></p> <ul style="list-style-type: none">a) Small intestineb) Large intestinec) Duodenum onlyd) Jejunum onlye) Appendix only	B
43	<p><u>The muscularis externa (musculosa) of both small and large intestine consists of:</u></p> <ul style="list-style-type: none">a) Inner longitudinal and outer circular smooth muscleb) Inner circular and outer longitudinal smooth musclec) Oblique fibers onlyd) Skeletal muscle fibers onlye) Only a single layer of smooth muscle	B
44	<p><u>Which feature is unique to the small intestine compared to the large intestine?</u></p> <ul style="list-style-type: none">a) Well-developed villi with absorptive cellsb) Presence of goblet cellsc) Numerous crypts of Lieberkühnd) Lymphoid follicles in mucosae) Muscularis externa layers	A
45	<p><u>Which of the following is true about the lumen of the appendix?</u></p> <ul style="list-style-type: none">a) Wide lumen throughout lifeb) Narrow lumen, obliterated in old agec) Triangular lumen with 3 foldsd) Lumen divided into bandse) Lumen completely absent	B



46	<p><u>The wall of the appendix is characteristically:</u></p> <ul style="list-style-type: none">a) Thin without lymphoid tissueb) Thickened by extensive lymphocytic infiltrationc) Covered with adventitia onlyd) Completely muscular with no mucosae) Replaced by fibrous tissue only	B
47	<p><u>Goblet cells are most numerous in the:</u></p> <ul style="list-style-type: none">a) Appendixb) Colonc) Rectumd) Duodenume) Stomach	C
48	<p><u>Which part of the large intestine has numerous long crypts with solitary lymphoid follicles?</u></p> <ul style="list-style-type: none">a) Appendixb) Colonc) Rectumd) Both b and ce) All of the above	D
49	<p><u>The corium of the appendix is distinct because it contains:</u></p> <ul style="list-style-type: none">a) Few solitary lymphoid folliclesb) Circular layer of lymphoid follicles extending into submucosac) No lymphoid tissue at alld) Only mucous glands without lymphoid tissuee) Long villi	B
50	<p><u>The muscularis mucosa in the appendix is described as:</u></p> <ul style="list-style-type: none">a) Definedb) Absent completelyc) Ill defined due to lymphoid infiltrationd) Continuous with taenia colie) Replaced by fibrous adventitia	C



51	<p><u>Taenia coli (three longitudinal muscle bands) are present in:</u></p> <ul style="list-style-type: none">a) Appendix onlyb) Rectum onlyc) Colon onlyd) All parts of large intestinee) Absent in all parts	C
52	<p><u>The outer longitudinal layer of the muscularis externa is continuous in:</u></p> <ul style="list-style-type: none">a) Appendix and rectumb) Colon onlyc) Duodenum onlyd) All parts of intestine equallye) Stomach and rectum	A
53	<p><u>The rectum differs from colon histologically by having:</u></p> <ul style="list-style-type: none">a) More numerous goblet cellsb) Crypts longer than colonc) Outer longitudinal layer continuous (no taenia coli)d) Serosa partially replaced with adventitiae) All of the above	E
54	<p><u>Which of the following best describes the serosal covering of the appendix, colon, and rectum?</u></p> <ul style="list-style-type: none">a) Appendix - absent, Colon - absent, Rectum - absentb) Appendix - present, Colon - present, Rectum - partially replaced by adventitiac) Appendix - adventitia only, Colon - serosa only, Rectum - serosa onlyd) Appendix - absent, Colon - adventitia, Rectum - serosae) All covered with peritoneum equally	B