

HISTOLOGY

GIT - MNU

LECTURE 1 - MCQ



Harvard
Printing center



DR

A.G

SEM

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| 1 | <p><u>Which of the following is NOT a layer of the digestive tract wall?</u></p> <ul style="list-style-type: none">a) Mucosab) Submucosac) Muscularis externad) Adventitia/Serosae) Perichondrium | E |
| 2 | <p><u>The mucosa of the digestive tract is formed of:</u></p> <ul style="list-style-type: none">a) Epithelium, lamina propria, muscularis mucosaeb) Epithelium, submucosa, serosac) Epithelium, basement membrane onlyd) Muscularis externa, lamina propria, adventitiae) Epithelium, serosa, lamina muscularis | A |
| 3 | <p><u>Which component of mucosa allows local movement?</u></p> <ul style="list-style-type: none">a) Epitheliumb) Lamina propriac) Muscularis mucosaed) Submucosae) Adventitia | C |
| 4 | <p><u>The submucosa contains which autonomic plexus?</u></p> <ul style="list-style-type: none">a) Auerbach's plexusb) Meissner's plexusc) Cardiac plexusd) Cervical plexuse) Coeliac plexus | B |
| 5 | <p><u>The muscularis externa of the digestive tract is composed of:</u></p> <ul style="list-style-type: none">a) Inner circular and outer longitudinal smooth muscle layersb) Skeletal muscle fibers onlyc) Three oblique smooth muscle layersd) Cardiac muscle bundlese) Elastic fibers | A |



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| 6 | <p><u>Which plexus lies between the layers of muscularis externa?</u></p> <ul style="list-style-type: none">a) Auerbach's plexusb) Meissner's plexusc) Cervical plexusd) Sympathetic chaine) Hepatic plexus | A |
| 7 | <p><u>Which layer of the digestive tract may be covered by mesothelium?</u></p> <ul style="list-style-type: none">a) Adventitiab) Serosac) Submucosad) Muscularis mucosaee) Lamina propria | B |
| 8 | <p><u>The epithelium of the esophagus is:</u></p> <ul style="list-style-type: none">a) Simple columnarb) Stratified squamous non-keratinizedc) Stratified squamous keratinizedd) Transitionale) Simple squamous | B |
| 9 | <p><u>At the lower end of the esophagus, the mucosa contains:</u></p> <ul style="list-style-type: none">a) Brunner's glandsb) Cardiac mucous glandsc) Pure serous salivary glandsd) Peyer's patchese) Sebaceous glands | B |
| 10 | <p><u>The submucosa of the esophagus contains:</u></p> <ul style="list-style-type: none">a) Mucous-secreting esophageal glandsb) Gastric pitsc) Sebaceous glandsd) Pure serous acinie) Smooth muscle fibers | A |



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| 11 | <p><u>The muscularis externa of the upper third of esophagus contains:</u></p> <ul style="list-style-type: none">a) Smooth muscle onlyb) Skeletal muscle onlyc) Mixed skeletal and smoothd) Elastic fiberse) Cardiac muscle | B |
| 12 | <p><u>The muscularis externa of the middle third of esophagus contains:</u></p> <ul style="list-style-type: none">a) Skeletal muscle onlyb) Smooth muscle onlyc) Mixed skeletal and smooth muscled) Cardiac musclee) Elastic fibers only | C |
| 13 | <p><u>The muscularis externa of the lower third of esophagus contains:</u></p> <ul style="list-style-type: none">a) Skeletal muscle onlyb) Smooth muscle onlyc) Mixed skeletal and smooth muscled) Transitional epitheliume) Elastic tissue | B |
| 14 | <p><u>Control of esophageal muscle is:</u></p> <ul style="list-style-type: none">a) Entirely voluntaryb) Entirely involuntaryc) Voluntary in upper 1/3, involuntary in lower 2/3d) Reflex and voluntary combinede) Independent of nervous system | B |
| 15 | <p><u>The outermost layer of esophagus (except lower end) is:</u></p> <ul style="list-style-type: none">a) Serosab) Adventitia (fibrosa)c) Lamina propriad) Submucosae) Muscularis mucosae | B |



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| 16 | <p><u>Which part of the stomach surrounds the gastro-esophageal junction?</u></p> <ul style="list-style-type: none">a) Fundusb) Bodyc) Pylorusd) Cardiac regione) Antrum | D |
| 17 | <p><u>Which region of the stomach is the upper convex part?</u></p> <ul style="list-style-type: none">a) Fundusb) Cardiac) Bodyd) Antrume) Pyloric canal | A |
| 18 | <p><u>Which part of the stomach forms the middle two-thirds of its length?</u></p> <ul style="list-style-type: none">a) Fundusb) Cardiac regionc) Bodyd) Pyloric sphinctere) Antrum | C |
| 19 | <p><u>The pyloric region of the stomach is formed of all EXCEPT:</u></p> <ul style="list-style-type: none">a) Antrumb) Cardiac sphincterc) Pyloric canald) Pyloric sphincter | B |
| 20 | <p><u>The mucosal surface of the stomach appears:</u></p> <ul style="list-style-type: none">a) Covered with intestinal villib) Smooth with folds called gastric rugaec) Striated with longitudinal ridges onlyd) Covered with thick keratinized epitheliume) Containing Peyer's patches | B |



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| 21 | <p><u>The gastric pits on the mucosal surface represent:</u></p> <ul style="list-style-type: none">a) Openings of gastric glandsb) Intestinal cryptsc) Endocrine ductsd) Lymphatic nodulese) Mesenteric folds | A |
| 22 | <p><u>The epithelium of gastric mucosa is:</u></p> <ul style="list-style-type: none">a) Stratified squamous non-keratinizedb) Simple columnar secretory epitheliumc) Transitional epitheliumd) Pseudostratified columnar ciliatede) Stratified cuboidal epithelium | B |
| 23 | <p><u>The lamina propria of gastric mucosa is:</u></p> <ul style="list-style-type: none">a) Dense regular connective tissueb) Loose connective tissue with blood vessels, lymphatics, and gastric glandsc) Smooth muscle onlyd) Cartilage with elastic fiberse) Bone tissue | B |
| 24 | <p><u>Which layer of gastric mucosa is composed of thin smooth muscle?</u></p> <ul style="list-style-type: none">a) Lamina propriab) Muscularis mucosaec) Submucosad) Serosae) Adventitia | B |
| 25 | <p><u>The submucosa of stomach contains:</u></p> <ul style="list-style-type: none">a) Brunner's glandsb) Loose connective tissue with blood vesselsc) Peyer's patchesd) Skeletal muscle bundlese) Elastic cartilage | B |



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| 26 | <p><u>The plexus found in the submucosa of stomach is:</u></p> <ul style="list-style-type: none">a) Auerbach's plexusb) Meissner's plexusc) Celiac plexusd) Cardiac plexuse) Sympathetic chain | B |
| 27 | <p><u>The muscularis externa of stomach differs from intestine by having:</u></p> <ul style="list-style-type: none">a) Only 2 muscle layersb) inner oblique, middle circular, outer longitudinalc) Only smooth longitudinal fibersd) Mixed smooth and skeletal musclee) Voluntary muscle only | B |
| 28 | <p><u>Which plexus lies between layers of muscularis externa of stomach?</u></p> <ul style="list-style-type: none">a) Meissner's plexusb) Auerbach's plexusc) Cervical plexusd) Sympathetic chaine) Celiac plexus | B |
| 29 | <p><u>The serosa of stomach is composed of:</u></p> <ul style="list-style-type: none">a) Dense fibrous connective tissue onlyb) Loose connective tissue with mesotheliumc) Stratified squamous keratinized epitheliumd) Elastic cartilagee) Transitional epithelium | B |
| 30 | <p><u>Which gastric gland secretes digestive enzymes and HCl?</u></p> <ul style="list-style-type: none">a) Cardiac glandsb) Fundic glandsc) Pyloric glandsd) Esophageal glandse) Brunner's glands | B |



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| 31 | <p><u>The fundic glands are classified as:</u></p> <ul style="list-style-type: none">a) Simple tubular glandsb) Simple branched tubular glandsc) Compound alveolar glandsd) Compound tubular glandse) Simple squamous glands | B |
| 32 | <p><u>Fundic glands are most numerous in which region of the stomach?</u></p> <ul style="list-style-type: none">a) Cardiac regionb) Fundus and bodyc) Pyloric antrumd) Gastro-esophageal junctione) Duodenum | B |
| 33 | <p><u>The general shape of fundic glands is:</u></p> <ul style="list-style-type: none">a) Conicalb) Alveolarc) Narrow and longd) Rounded and widee) Short and branched | C |
| 34 | <p><u>Which part of fundic glands occupies about 1/4 of lamina propria?</u></p> <ul style="list-style-type: none">a) Bodyb) Neckc) Isthmusd) Duct (pit)e) Base | D |
| 35 | <p><u>Which part of the fundic gland lies between the duct and the neck?</u></p> <ul style="list-style-type: none">a) Bodyb) Bottomc) Isthmusd) Pite) Surface epithelium | C |



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| 36 | <p><u>Which cells line the surface and gastric pits of fundic glands?</u></p> <ul style="list-style-type: none">a) Mucous neck cellsb) Parietal cellsc) Simple columnar secretory (foveolar) cellsd) Chief cellse) Enteroendocrine cells | C |
| 37 | <p><u>The main function of surface mucous (foveolar) cells is:</u></p> <ul style="list-style-type: none">a) Secretion of pepsinogenb) Secretion of HClc) Secretion of thick mucus protecting gastric mucosa from acid and enzymesd) Secretion of intrinsic factore) Secretion of serotonin | C |
| 38 | <p><u>Which cells are found at the neck of the fundic glands?</u></p> <ul style="list-style-type: none">a) Chief cellsb) Parietal cellsc) Mucous neck cellsd) Surface mucous cells onlye) Enteroendocrine cells | C |
| 39 | <p><u>The cytoplasm of mucous neck cells is:</u></p> <ul style="list-style-type: none">a) Basophilic with rERb) Foamy due to more dissolved mucusc) Clear due to glycogend) Granular eosinophilic with zymogene) Packed with mitochondria | B |
| 40 | <p><u>Chief (peptic or zymogen) cells are located mainly in:</u></p> <ul style="list-style-type: none">a) Surface epitheliumb) Gastric pitsc) Body and base of the fundic glandsd) Neck of the glandse) Submucosa | C |



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| 41 | <p><u>Which cytoplasmic features characterize chief (zymogen) cells?</u></p> <ul style="list-style-type: none">a) Basal basophilia (rER) and apical acidophilic zymogen granulesb) Clear vacuolated cytoplasmc) Apical foamy mucus granulesd) Dense mitochondria with canaliculie) Lipid droplets | A |
| 42 | <p><u>Which enzymes are secreted by chief cells?</u></p> <ul style="list-style-type: none">a) Pepsinogen and renin enzymesb) HCl and intrinsic factorc) Gastrin and serotonind) Lipase and amylasee) Somatostatin and glucagon | A |
| 43 | <p><u>Parietal (oxyntic) cells are characterized by:</u></p> <ul style="list-style-type: none">a) Rounded basal nuclei and basophilic cytoplasmb) Large pyramidal shape with eosinophilic cytoplasm, central nucleusc) Foamy cytoplasm with mucus dropletsd) Basal dense rER and apical zymogen granulese) Clear cytoplasm with glycogen | B |
| 44 | <p><u>The main secretory product of parietal cells is:</u></p> <ul style="list-style-type: none">a) Pepsinogenb) Mucusc) HCl and intrinsic factord) Gastrine) Renin enzyme | C |
| 45 | <p><u>Which cells of the fundic gland function as regenerative stem cells?</u></p> <ul style="list-style-type: none">a) Parietal cellsb) Chief cellsc) Enteroendocrine cellsd) Undifferentiated columnar cellse) Mucous neck cells | D |



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| 46 | <p><u>Parietal (oxyntic) cells are mainly located in:</u></p> <ul style="list-style-type: none">a) Surface epitheliumb) Neck and body of fundic glandsc) Base of pyloric glandsd) Submucosae) Serosa | B |
| 47 | <p><u>Which shape best describes parietal cells under LM?</u></p> <ul style="list-style-type: none">a) Short columnarb) Triangular with central rounded nucleusc) Cuboidal with apical nucleusd) Flattened squamouse) Pyramidal with narrow apex | B |
| 48 | <p><u>The cytoplasm of parietal cells is:</u></p> <ul style="list-style-type: none">a) Basophilic due to rERb) Deeply acidophilic (oxyntic)c) Clear vacuolatedd) Foamy with dissolved mucuse) Filled with lipid droplets | B |
| 49 | <p><u>Which intracellular structures are characteristic of parietal cells?</u></p> <ul style="list-style-type: none">a) Abundant lysosomesb) Numerous mitochondria, intracellular canaliculic) Secretory granules of pepsinogend) Glycogen vacuolese) Lipid inclusions | B |
| 50 | <p><u>The main secretions of parietal cells are:</u></p> <ul style="list-style-type: none">a) Pepsinogen and reninb) HCl and intrinsic factorc) Gastrin and somatostatind) Mucus and bicarbonatee) Lipase and amylase | B |



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| 51 | <p><u>Intrinsic factor secreted by parietal cells is essential for absorption of:</u></p> <ul style="list-style-type: none">a) Ironb) Vitamin B12c) Vitamin Kd) Calciume) Folate | B |
| 52 | <p><u>Enteroendocrine cells of the stomach can be stained by:</u></p> <ul style="list-style-type: none">a) PAS onlyb) Silver salts (argentaaffin granules)c) Sudan blackd) Trichrome staine) H&E only | B |
| 53 | <p><u>Which statement best describes the role of undifferentiated columnar cells (stem cells)?</u></p> <ul style="list-style-type: none">a) They secrete mucusb) They regenerate and replace all other gastric cellsc) They produce pepsinogend) They release gastrine) They protect surface epithelium only | B |
| 54 | <p><u>Pyloric glands are classified as:</u></p> <ul style="list-style-type: none">a) Simple branched tubular mucous glandsb) Simple alveolar glandsc) Pure serous glandsd) Compound acinar glandse) Endocrine glands only | A |
| 55 | <p><u>Which enteroendocrine cells in pyloric glands secrete gastrin?</u></p> <ul style="list-style-type: none">a) EC cellsb) D cellsc) G cellsd) Paneth cellse) Chief cells | C |



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| 56 | <p><u>Which enteroendocrine cells in pyloric glands secrete somatostatin?</u></p> <ul style="list-style-type: none">a) G cellsb) D cellsc) EC cellsd) Parietal cellse) Chief cells | B |
| 57 | <p><u>The mucosa of the gastric fundus compared to the pylorus is:</u></p> <ul style="list-style-type: none">a) Thinner and less foldedb) Thicker and more foldedc) Identical in thicknessd) Absent in pyloruse) Lined with stratified squamous epithelium | B |
| 58 | <p><u>Which region of the stomach has long, wide ducts occupying about 1/2 of the corium?</u></p> <ul style="list-style-type: none">a) Fundusb) Cardiac) Pylorusd) Esophaguse) Antrum | C |
| 59 | <p><u>Fundic glands are classified as:</u></p> <ul style="list-style-type: none">a) Simple branched tubularb) Coiled mucous branchedc) Compound alveolard) Compound tubulo-alveolare) Simple squamous | A |
| 60 | <p><u>Pyloric glands are classified as:</u></p> <ul style="list-style-type: none">a) Simple branched tubularb) Coiled, more branched mucous glandsc) Compound alveolard) Pure serouse) Mixed salivary type | B |



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| 61 | <u>Which stomach region has more numerous glands?</u> a) Fundus b) Pylorus c) Both equal d) Cardia e) Esophagus | A |
| 62 | <u>Arrangement of fundic glands is typically:</u> a) Coiled and cut in many planes b) Straight, parallel, cut in one plane c) Spiral with pits d) Branched alveolar e) Diffuse with no order | B |
| 63 | <u>Arrangement of pyloric glands is typically:</u> a) Parallel and straight b) Coiled and cut in various planes c) Alveolar only d) Tubuloalveolar e) Branched serous | B |
| 64 | <u>Which cells are absent in pyloric glands but present in fundic glands?</u> a) Enteroendocrine cells b) Parietal and chief cells c) Mucous neck cells d) G cells e) Surface mucous cells | B |
| 65 | <u>Which region of stomach contains lymphoid nodules in the corium?</u> a) Fundus b) Pylorus c) Cardia d) Body e) None | B |



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| 66 | <p><u>Muscularis externa of the fundus consists of:</u></p> <ul style="list-style-type: none">a) 1 layer onlyb) 2 layersc) 3 layersd) Skeletal muscle bundlese) Smooth & skeletal mixed | C |
| 67 | <p><u>Muscularis externa of the pylorus consists of:</u></p> <ul style="list-style-type: none">a) 2 layers (inner circular, outer longitudinal) with thickened circular forming sphincterb) 3 layers as in fundusc) Skeletal muscled) Oblique fibers onlye) Absent sphincter | A |
| 68 | <p><u>Which gastric enzyme initiates digestion of proteins?</u></p> <ul style="list-style-type: none">a) Pepsinb) Amylasec) Lipased) Trypsine) Enterokinase | A |
| 69 | <p><u>Intrinsic factor secreted in the stomach is essential for absorption of:</u></p> <ul style="list-style-type: none">a) Vitamin Kb) Vitamin B12c) Irond) Vitamin De) Folate | B |
| 70 | <p><u>The mucous gastric barrier is secreted mainly by:</u></p> <ul style="list-style-type: none">a) Parietal and chief cellsb) Surface epithelium and mucous neck cellsc) G cells and D cellsd) Paneth cellse) Enteroendocrine EC cells | B |



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| 71 | <p><u>If parietal cells are damaged, which condition may develop due to lack of intrinsic factor?</u></p> <ul style="list-style-type: none">a) Ricketsb) Scurvyc) Pernicious anemiad) Iron-deficiency anemiae) Night blindness | C |
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