

### **Review Questions for Digestive System:**

1. *What are the main functions of the digestive system?*
2. *What are the 2 main groups of digestive organs and how are they defined?*
3. *What are the organs of the alimentary canal? What do they share in common?*
4. *What are the accessory organs and what do they share in common?*
5. *What is ingestion and where does it occur?*
6. *What is propulsion and where does it occur?*
7. *What is peristalsis and where does it occur?*
8. *What is deglutition and where does it occur?*
9. *What is mechanical digestion and where does it occur?*
10. *What is segmentation and where does it occur?*
11. *What is chemical digestion and where does it occur?*
12. *What are enzymes?*
13. *What is absorption and where does it occur?*
14. *What is defecation and where does it occur?*
15. *What are feces?*
16. *What and where are the visceral and parietal peritoneum?*
17. *Where is the peritoneal cavity? How many organs does it contain?*
18. *What is peritoneal fluid? What is its function?*
19. *What is mesentery? What is its function?*
20. *What is meant by retroperitoneal? What digestive organs are retroperitoneal?*
21. *What are 4 basic layers of the GI tract wall?*
22. *What are the structural and functional characteristics of the mucosa?*
23. *What are the 3 layers of the mucosa?*
24. *What are the structural and functional characteristics of the epithelium?*
25. *What is the most common type of epithelium in the GI tract?*
26. *What other type of epithelium is found in the digestive tract? Where?*
27. *What are the structural and functional characteristics of the lamina propria?*
28. *What are the structural and functional characteristics of the muscularis mucosa?*
29. *What are the structural and functional characteristics of the submucosa?*
30. *What are the structural and functional characteristics of the muscularis externa?*
31. *What are the 2 basic layers of the muscularis externa? How do they differ?*
32. *What is a sphincter?*
33. *What are the structural and functional characteristics of the serosa?*
34. *What is the relationship btwn serosa and visceral peritoneum?*
35. *What is an adventitia? What organs have an adventitia?*
36. *What is the oral cavity?*
37. *What is the buccal cavity?*
38. *What is the oral orifice?*
39. *What is the vestibule?*
40. *What is the oral cavity proper?*

41. *What forms the roof of the oral cavity?*
42. *What forms the hard palate?*
43. *What forms the floor of the oral cavity?*
44. *What forms the lateral walls of the oral cavity?*
45. *What is the oropharynx?*
46. *What type of epithelium lines the oral cavity?*
47. *What muscles are associated with the oral cavity and what are their functions?*
48. *What is the function of the soft palate and uvula?*
49. *What is the labial frenulum?*
50. *What is a bolus?*
51. *What is the lingual frenulum?*
52. *What is the function of the tongue?*
53. *What are papillae? What are their functions?*
54. *What are taste buds?*
55. *What tonsil is found on the tongue?*
56. *What are the functions of the saliva?*
57. *What are the differences btwn intrinsic and extrinsic salivary glands?*
58. *Where is the parotid gland?*
59. *Where is the sublingual gland?*
60. *Where is the submandibular gland?*
61. *What is the basic composition of saliva?*
62. *What is the function of salivary amylase?*
63. *What are the functions of IgA and lysozyme?*
64. *What is the function of mucin?*
65. *What digestive processes occur in the mouth?*
66. *Where does the bolus go once it exits the oral cavity?*
67. *Where does the bolus go once it exits the oropharynx?*
68. *Where does the bolus go once it exits the laryngopharynx?*
69. *What prevents the bolus from entering the nasopharynx?*
70. *What type of epithelium lines the oropharynx and laryngopharynx?*
71. *What do the pharyngeal constrictors do?*
72. *How long is the esophagus?*
73. *What type of epithelium lines the esophagus?*
74. *How does the mucosa appear when the esophagus is empty?*
75. *What types of glands are found in the esophageal submucosa?*
76. *What is unique about the esophageal muscularis externa?*
77. *What is the outer layer of the esophagus?*
78. *Where is the esophagus located?*
79. *What skeletal muscle does the esophagus pass right through?*
80. *What is the esophageal hiatus?*
81. *What organ does the esophagus join?*
82. *What is the cardiac orifice?*
83. *What is the cardiac or gastroesophageal sphincter?*
84. *What are the basic regions of the stomach?*
85. *What are the divisions of the pyloric region?*

86. *What is the function of the pyloric sphincter?*
87. *What is chyme?*
88. *What are rugae? What is their function?*
89. *What are the greater and lesser curvatures?*
90. *What are the greater and lesser omenta?*
91. *What type of epithelium lines the stomach?*
92. *What are gastric pits?*
93. *What are gastric glands? What do they secrete?*
94. *What's the function of surface mucous cells?*
95. *What's the function of mucous neck cells?*
96. *What's the function of parietal cells?*
97. *What's the function of intrinsic factor?*
98. *What's the function of hydrochloric acid?*
99. *What's the function of chief cells?*
100. *What's the function of pepsinogen?*
101. *What's the function of pepsin?*
102. *How is pepsinogen converted to pepsin?*
103. *What's the function of enteroendocrine cells?*
104. *What's the function of gastrin?*
105. *What effect does gastrin have on gastric juice secretion?*
106. *What effect does gastrin have on gastric muscle activity?*
107. *What effect does gastrin have on colonic muscle activity?*
108. *What prevents the stomach's contents from digesting its own epithelium?*
109. *How is the muscularis externa of the stomach unique? What's the purpose?*
110. *What is absorbed in the stomach?*
111. *What happens during the cephalic phase of gastric activity? What stimuli initiate it? What brain center, nerves, and neurotransmitter are involved?*
112. *What happens during the gastric phase of gastric activity? What stimuli initiate it? What hormone is involved? Where is it produced and what does it do?*
113. *What happens during the intestinal phase of gastric activity? What stimuli initiate it? What hormone is involved? Where is it produced and what does it do?*
114. *What effect does duodenal stretch ultimately have on gastric activity? What hormones are involved? Where are they made and what do they do?*
115. *What effect does sympathetic activity have on gastric activity?*
116. *What are the overall general structural characteristics of the small intestine?*
117. *What are the 3 regions of the small intestine?*
118. *What are all the structural characteristics of the duodenum?*
119. *What 4 organs empty into the duodenum?*
120. *Trace a drop of bile from the left half of the liver to the duodenum.*
121. *Trace a drop of bile from the right half of the liver to the duodenum.*
122. *Trace a drop of bile from the gallbladder to the duodenum.*
123. *Trace a drop of pancreatic juice from the pancreas to the duodenum.*
124. *What hormones does the duodenum secrete?*
125. *What type of mucus does the duodenum secrete? Why?*

126. *What is the hepatopancreatic ampulla?*
127. *What is the function of the hepatopancreatic sphincter? When is it contracted? When is it relaxed?*
128. *What are the structural characteristics of the jejunum?*
129. *What are the structural characteristics of the ileum?*
130. *In what region of the small intestine does the majority of nutrient digestion and absorption occur?*
131. *What 3 structures help maximize the surface area of the small intestine? How do they differ?*
132. *What are plicae circulares? What layers of the intestinal wall do they involve?*
133. *What are villi? What layers of the intestinal wall do they involve?*
134. *What structures are found within the core of the villus? What do they do?*
135. *What kind of epithelium lines the small intestine?*
136. *What are microvilli? What are they also known as? What do they contain?*
137. *What are goblet cells? What purpose do they have? Where are they found?*
138. *What are intestinal glands? Where are they found? What do they secrete?*
139. *What are Peyer's patches? Where are they found? What is their function?*
140. *What are the general structural features of the liver?*
141. *What are the 4 lobes of the liver? How are they arranged?*
142. *What are the falciform and coronary ligaments?*
143. *What is the primary digestive function of the liver?*
144. *What vessels bring blood to the liver?*
145. *What is the basic microscopic unit of the liver?*
146. *What are the structural characteristics of the liver lobule?*
147. *What are the functions of the liver lobule?*
148. *What is a portal triad?*
149. *What is a central vein?*
150. *How does the blood in the following vessels differ: portal arteriole, portal venule, and central vein?*
151. *What is a bile canaliculus?*
152. *What is the function of bile?*
153. *What is the function of the gallbladder?*
154. *Trace a drop of bile from the right and left halves of the liver to the gallbladder.*
155. *What effect does cholecystokinin have on the gallbladder?*
156. *What effect does cholecystokinin have on the hepatopancreatic sphincter?*
157. *What are the stimuli that prompt the duodenum to release cholecystokinin?*
158. *What are the structural characteristics of the pancreas?*
159. *What are the basic exocrine and endocrine functions of the pancreas?*
160. *What are acini?*
161. *What do acinar cells secrete?*
162. *What do pancreatic duct cells secrete?*
163. *What are proteases?*
164. *What fat-digesting enzyme does the pancreas secrete?*
165. *What carb-digesting enzyme does the pancreas secrete?*

166. *What are the islets of Langerhans?*
167. *What are alpha and beta cells and what do they do?*
168. *What stimulates insulin release? What stimulates glucagon release?*
169. *What effect does glucagon have on plasma glucose levels? What effect does insulin have on plasma glucose levels?*
170. *What is the pH of pancreatic juice? Why?*
171. *What effect does cholecystokinin have on pancreatic acinar cells?*
172. *What effect does secretin have on pancreatic duct cells?*
173. *What effect does parasympathetic activity have on pancreatic juice secretion?*
174. *What are the general structural and functional characteristics of the large intestine?*
175. *What is the ileocecal valve? What does it do?*
176. *What are teniae coli and haustra?*
177. *Where and what is the cecum?*
178. *Where and what is the appendix?*
179. *What are the basic divisions and flexures of the colon? Where are they found?*
180. *What and where are the anal sphincters? What is their function? How do they differ?*
181. *What kind of epithelium lines the large intestine?*
182. *Why are there lots of goblet cells in the lining of the large intestine?*
183. *What is unique about the muscularis externa of the colon?*
184. *What are bacterial flora? How are they beneficial?*
185. *What are haustral contractions?*
186. *What are migrating motor complexes?*
187. *What is the gastrocolic reflex?*
188. *What is the sequence of events in the defecation reflex?*