

UNIT 5: HUMAN PHYSIOLOGY

CHAPTER 16: DIGESTION AND ABSORPTION

ONE MARK QUESTIONS:

1. Define digestion. (k)
2. Define the term '*thecodont*.' (k)
3. Name the hardest chewing surface of human teeth. (k)
4. How many incisors are present in the oral cavity? (k)
5. How many canines are present in the oral cavity? (k)
6. How many premolars are present in the oral cavity? (k)
7. How many molars are present in the oral cavity? (k)
8. Write the dental formula of human beings (k)
9. Name the salivary gland present in the cheek region. (k)
10. Name the salivary gland present below the tongue. (k)
11. Which salivary gland is found in the lower jaw? (k)
12. Where do you find *frenulum*? (k)
13. Where do you find *papillae*? (k)
14. What is the name of the small projections on upper surface of the tongue? (k)
15. What is the role of *epiglottis*? (k)
16. Mention the function of Goblet cells. (k)
17. What percentage of starch is hydrolysed by amylase in the oral cavity? (k)
18. Give another name for *intestinal juice*. (k)
19. Name the cells which secrete HCL. (k)
20. Other than salivary gland, which gland secretes amylase? (u)
21. Name the only enzyme which helps in activating *proenzymes*. (k)
22. Name the pancreatic enzyme which acts on starch. (k)
23. Define *peristalsis*. (k)
24. Name the major lymph vessel present in the *intestinal villi*. (k)
25. Name the duct which carries bile juice and pancreatic juice into the duodenum. (k)
26. What is the function of gallbladder? (k)
27. Name the duct of gallbladder. (k)
28. Where do you find crypts of *Lieberkühn*? (k)
29. Define *degultition*. (k)
30. What is *bolus*? (k)
31. What is the role of salivary amylase in the digestive system? (k)
32. What role does lysozyme play in the salivary juice? (k)
33. In which region of the digestive system do you find symbiotic microorganisms? (u)
34. Name the gland which secretes *succus entericus*? (k)
35. Name the hormone which is associated with the disease *diabetes mellitus*. (u)
36. What is the function of pyloric sphincter? (k)
37. Name the sphincter present at the junction of oesophagus and stomach. (k)
38. Which vestigial organ is found associated with the human digestive system. (k)
39. Where do you find Sphincter of Oddi? (k)
40. Name the digestive enzyme present in salivary juice? (k)
41. Which is the antibacterial agent present in the saliva? (k)
42. What is chyme? (k)

43. What is the function of enterokinase? (k)
44. Where is ileo-caecal valve located? (k)
45. What are micelles? (k)
46. What are chylomicrons? (k)
47. Define assimilation. (k)
48. What is the function of villi present in the small intestine? (u)
49. Name the connective tissue sheath covering the hepatic lobules. (k)
50. Which region of the brain controls the reflex of vomiting? (k)
51. How does HCL help in protein digestion? (u)
52. What is the range of pH found in stomach? (k)
53. How is the gastric mucosa protected from HCL? (u)
54. Pancreas secretes insulin. Which is the other hormone secreted by pancreas? (u)
55. What is the role of intrinsic factor secreted by oxyntic cells? (u)
56. What is the other name of parietal cells? (k)
57. Name the duct of gall bladder. (k)
58. Why is emulsification important for digestion? (u)
59. Which gland secretes the enzyme nuclease? (k)
60. What is the role of Brunner's gland in the digestive system? (u)
61. Which is the outermost layer of the wall of the alimentary canal? (k)
62. In what range of pH does digestion take place in small intestine? (u)
63. Name the duct which carries bile juice and pancreatic juice into the duodenum. (k)
64. Name the proteolytic enzyme which helps in the digestion of milk in infants. (k)
65. Where do you find Brunner's gland? (k)
66. Which is the shortest segment of the small intestine? (k)
67. Define absorption with respect to the digestive system. (k)
68. Where do you find goblet cells? (k)
69. Name the end product of protein digestion. (k)
70. Name the cells which secrete pepsinogen. (k)
71. Define defecation. (k)
72. Name the enzyme which helps in the digestion of nucleotides. (k)
73. What is the function of gall bladder? (u)
74. Which component of bile juice causes emulsification? (k)
75. What is lacteal? (k)
76. Which is the largest gland in the human body? (k)
77. Which is the innermost layer of the wall of the alimentary canal? (k)
78. In which layer of the alimentary canal wall do you find loose connective tissue? (k)
79. What are rugae? (k)
80. Give the approximate weight of liver in the human body. (k)
81. Name the sphincter which guards the hepatopancreatic duct. (k)
82. Name the sphincter which controls passage of food from the oesophagus into the stomach. (k)
83. How many permanent teeth does an adult human have? (k)
84. Name the structure which regulates the opening of the oesophagus into the stomach. (k)
85. Name the structure which guards the opening of the stomach to the duodenum. (k)
86. What is Glisson's capsule? (k)
87. Mention any one end product of lipid digestion? (k)
88. Name the exocrine secretion of the pancreas. (k)
89. What is the function of Maltase? (u)
90. What is the function of Lactase? (u)

91. What is the function of sucrase? (u)
92. What is the function of Dipeptidase? (u)
93. What is the function of pepsin? (u)
94. What is the function of rennin? (u)
95. What is the function of trypsin? (u)
96. What is the function of chymotrypsin? (u)
97. What is the function of carboxypeptidase? (u)
98. What is the function of pancreatic amylase? (u)
99. What disease is caused by consuming spicy food and overeating? (k)
100. What is jaundice? (k)
101. If a person consumes alcohol, which part of the digestive system absorbs it? (k)
102. Name the 'U' shaped structure emerging from the stomach. (k)
103. Which is the small blind sac present in the digestive system of human being? (k)
104. What is the opening of the wind pipe called as? (k)
105. Name the cartilaginous flap which covers the glottis. (k)
106. In which part of the alimentary canal does absorption of water, simple sugars and alcohol takes place? (k)
107. Name the enzymes involved in the breakdown of nucleotides into sugars and bases.(k)
108. What do we call the type of teeth attachment to jaw bones in which each tooth is embedded in a socket of jaw bones? (k)
109. Define assimilation with respect to the digestion. (k)

TWO MARKS QUESTIONS:

110. Where do you find Glisson's capsule? Mention the function of Glisson's capsule.(k)
111. Mention the parts of the small intestine? Name the glands present in the small intestine. (k)
112. Explain the term Diphyodont. (u)
113. Name any two major components of food. (k)
114. Why is water essential for our body? (u)
115. Differentiate between bolus and chyme. (u)
116. Name the four layers of the wall of the alimentary canal. (k)
117. Explain the steps involved in fat digestion. (u)
118. What is the role of pepsin and rennin in the digestive system? (k)
119. Mention the regions of absorption of the following compounds in the digestive system: (a) Drugs, (b) amino acids (c) glucose (d) Fructose. (k)
120. Mention the regions of absorption of the following compounds in the digestive system: (a) fatty acids (b) alcohol (c) Water (d) Drugs (k)
121. Name any four parasites which can infect the intestine. (k)
122. What is the composition of succus entericus? (k)
123. Where is the stomach located in the human body? Mention the major parts of the stomach. (k)
124. Without emulsification the process of digestion is incomplete. Explain. (u)
125. Explain how facilitated transportation helps in the process of digestion. (u)
126. Explain the process of digestion in the oral cavity. (u)
127. Draw a neat labelled diagram of the villi of small intestine. (s)
128. Bile juice and enterokinase are essential for digestion. Give reasons. (a)
129. Explain the functions of large intestine. (u)

THREE MARKS QUESTIONS:

130. Name the salivary glands found in the human being and mention their location. (k)
131. What is the composition of saliva? (k)
132. Name the major digestive glands in the digestive system of man. (k)
133. Briefly explain the process of digestion in the oral cavity. (u)
134. Mention the parts of the large intestine. (k)
135. What are the major types of cells found in the glands of stomach and mention its secretions. (k)
136. What is the role of HCL in the stomach? (u)
137. Name the Inactive enzymes found in the stomach and pancreatic juice. (k)
138. What is the composition of bile juice? (k)
139. What are the functions of bile juice? (k)
140. Name the different types of teeth and their number in an adult human being. (k)
141. Explain the action of pancreatic juice on proteins. (u)
142. Describe the process of lipid digestion in man. (u)
143. Briefly explain the process of absorption of fatty acids and glycerol in the digestive system. (u)
144. What are the functions of liver? (k)
145. How does butter in your food get digested and absorbed in the body? (u)
146. How are the activities of the gastro-intestinal tract regulated? (u)
147. Distinguish between constipation and indigestion. Mention their major causes. (u)
148. List the end products obtained after complete digestion of food. (k)
149. Bile juice contains no digestive enzymes, yet it is important for digestion. Why?

FIVE MARKS QUESTIONS:

150. Draw a neat labelled diagram of digestive system of a human being. (s)
151. Name the associated exocrine glands of the digestive system. Mention their location. (k)
152. Explain the mechanism of protein digestion in humans. (u)
153. Explain the mechanism of carbohydrate digestion in humans. (u)
154. Draw a neat labelled diagram of a section of small intestine and describe its structure. (s)
155. Draw neat labelled diagram of the duct system in liver, gallbladder and pancreas. (s)
156. Write a brief note on the permanent teeth in an adult human being. (k)
157. Draw a neat labelled diagram of a section of villi and explain its structure and function. (s)
158. Explain the process of digestion in the stomach. (u)
159. How are polysaccharides and disaccharides digested in our body? (u)
160. Write a brief note on the following diseases of the digestive system: (a) Jaundice (b) vomiting (c) diarrhoea (d) constipation and (e) indigestion. (k)
161. Define absorption. How and where does absorption of the following take place? (a) Amino acids and monosaccharides, (b) Fatty acids and glycerol (u)
162. Explain the process of absorption of digested food in the stomach and small intestine. (u)