

Unit 9: Human Digestive System

Multiple Choice Questions

MULTIPLE CHOICE QUESTIONS (EXERCISE)

1. **Where does chemical digestion of carbohydrates begin?**
(a) Stomach (b) Oesophagus
(c) Small intestine (d) Mouth
2. **Which enzyme in saliva starts breaking down starch?**
(a) Lipase (b) Amylase (Ptyalin)
(c) Trypsin (d) Pepsin
3. **What prevents food from entering the trachea during swallowing?**
(a) Epiglottis
(b) Oesophageal sphincter
(c) Uvula
(d) Tongue
4. **Why does the enzyme activity drops in the stomach when pH rises?**
(a) Acid blocks food entry
(b) Enzymes denature in low pH
(c) Enzymes need acidic pH to work
(d) Saliva dilutes gastric juice
5. **Which change would most affect protein digestion?**
(a) Blocking bile release
(b) Inhibiting salivary glands
(c) Inhibiting pepsin production
(d) Slowing peristalsis
6. **Why is lipase not active in the stomach?**
(a) It is destroyed by acid
(b) It needs alkaline pH to work
(c) It is secreted by the liver
(d) It digests only proteins
7. **Which stomach secretion activates pepsin and kills bacteria?**
(a) Bile
(b) Hydrochloric acid (HCl)
(c) Sodium bicarbonate
(d) Mucus
8. **Why is segmentation important in the small intestine?**
(a) It absorbs bile
(b) It breaks down enzymes
(c) It mixes food with digestive juices
(d) It pushes food to the rectum
9. **What is the function of villi and microvilli in the small intestine?**
(a) Produce enzymes
(b) Increase surface area for absorption
(c) Store bile
(d) Neutralize stomach acid
10. **Which best explains the liver's role in digestion?**
(a) It produces insulin
(b) It stores undigested food
(c) It produces bile for fat digestion
(d) It secretes enzymes into the colon

SLO BASED MULTIPLE CHOICE QUESTIONS

Anatomy and Physiology of Digestive System

11. The GI tract is a continuous tube that extends from:
 - (a) Mouth to Anus
 - (b) Mouth to Stomach
 - (c) Mouth to Rectum
 - (d) Mouth to large intestine
12. Which of the following help to retain food in oral cavity?
 - (a) Tongue
 - (b) Teeth
 - (c) Lips
 - (d) Epiglottis
13. Muscular tongue plays its role in selection of food through:
 - (a) Taste buds
 - (b) Muscles
 - (c) Saliva
 - (d) Ptyalin
14. Mastication is a type of:
 - (a) Extra cellular digestion
 - (b) Intracellular digestion
 - (c) Chemical digestion
 - (d) Mechanical digestion
15. How many pairs of salivary glands are present in man?
 - (a) One
 - (b) Two
 - (c) Three
 - (d) Four
16. Fresh saliva has pH of:
 - (a) 2
 - (b) 4
 - (c) 6
 - (d) 8
17. In oral cavity the food mass is in the form of a small moist mass called:
 - (a) Bolus
 - (b) Chyme
 - (c) Chyle
 - (d) Lump
18. Which salivary glands are present in front of ears:
 - (a) Sublingual
 - (b) Submaxillary
 - (c) Parotid
 - (d) Carotid
19. Saliva contains enzyme called as:
 - (a) Amylase
 - (b) Trypsin
 - (c) Pepsin
 - (d) Lipase
20. Entry of bolus into trachea is prevented by:
 - (a) Palate
 - (b) Soft palate
 - (c) Glottis
 - (d) Epiglottis
21. Food moves down through the oesophagus to the stomach by:
 - (a) Gravity
 - (b) Peristalsis
 - (c) Antiperistalsis
 - (d) Homeostasis
22. Which sphincter is present between oesophagus and stomach:
 - (a) Cardiac sphincter
 - (b) Renal sphincter
 - (c) Cephalic sphincter
 - (d) Ileocolic sphincter
23. Which movement results in the mixing of digestive secretion with food:
 - (a) Peristalsis
 - (b) Fragmentation
 - (c) Segmentation
 - (d) Hydration
24. Antiperistalsis is also called:
 - (a) Vomiting
 - (b) Pyrexia
 - (c) Dehydration
 - (d) Swallowing
25. Which portion of stomach is present immediately after oesophagus:
 - (a) Fundus
 - (b) Pyloric
 - (c) Cardiac
 - (d) Hepatic
26. Which is not part of stomach:
 - (a) Colic portion
 - (b) Cardiac portion
 - (c) Fundus portion
 - (d) Pyloric
27. How many layers of smooth muscles are present in stomach wall?
 - (a) One
 - (b) Two
 - (c) Three
 - (d) Four
28. Gastric glands are present in:
 - (a) Mucosa
 - (b) Submucosa
 - (c) Serosa
 - (d) Muscularis
29. HCl is secreted by:
 - (a) Oxyntic cells
 - (b) Chief cells
 - (c) Mucous cells
 - (d) zymogen cells

- 30. Pepsinogen is activated by:**
 (a) HCl (b) Mucous
 (c) Water (d) NaCl
- 31. The semi solid acidic mass of stomach after three to four hours of a meal is called:**
 (a) Bolus (b) Chyme
 (c) Chyle (d) Lump
- 32. Chyme is released into small intestine through:**
 (a) Pyloric sphincter
 (b) Cardiac sphincter
 (c) Ileocolic sphincter
 (d) Rectal sphincter
- 33. Secretion of gastric juice is regulated by:**
 (a) Visual mechanism
 (b) Nervous system
 (c) Hormonal mechanisms
 (d) Both b and c
- 34. Which of the following hormone is secreted by stomach?**
 (a) Pepsin (b) Secretin
 (c) Gastrin (d) Somatostatin
- 35. Which hormone stops the secretion of hydrochloric acid:**
 (a) Gastrin (b) Somatostatin
 (c) Adrenalin (d) Secretin
- 36. pH of pancreatic juice is slightly alkaline due to presence of:**
 (a) Carbonate (b) Bicarbonate
 (c) Sulfate (d) Phosphate
- 37. Trypsinogen is activated to trypsin by:**
 (a) Pepsinogen (b) Lipase
 (c) Enterokinase (d) Nuclease
- 38. Pancreatic nucleases digest:**
 (a) Nucleus (b) Nucleic acids
 (c) Nucleotides (d) Nucleolus
- 39. Bile before secretion is stored in:**
 (a) Urinary bladder
 (b) Swim bladder
 (c) Gall bladder
 (d) Renal bladder
- 40. Dipeptides are digested to amino acids by:**
 (a) Erypsin (b) Trypsin
 (c) Pepsin (d) Insulin
- 41. Enzymes of intestinal juice convert chyme into:**
 (a) Bolus (b) Chyle
 (c) Faeces (d) Lymph
- 42. For absorption of food each villus is richly supplied with blood capillaries and:**
 (a) Nerve (b) Lacteal
 (c) Arteries (d) Veins
- 43. Microvilli are:**
 (a) Cytoplasmic projection
 (b) Special cells
 (c) Type of flagella
 (d) Type of cilia
- 44. Hepatic portal vein carries sugar and proteins to:**
 (a) Heart (b) Kidney
 (c) Liver (d) Lungs
- 45. Chylomicrons are triglycerides coated with:**
 (a) Fats (b) Proteins
 (c) Vitamins (d) Enzymes
- 46. Large intestine is involved in absorption of which vitamin:**
 (a) A (b) D
 (c) E (d) K
- 47. Vermiform appendix arises for:**
 (a) Caecum (b) Rectum
 (c) Jejunum (d) Ileum
- 48. Next to the caecum is:**
 (a) Ileum (b) Jejunum
 (c) Duodenum (d) Colon
- 49. At its distal end rectum opens out through:**
 (a) Colon (b) Anus
 (c) Mouth (d) Caecum
- 50. Anus is surrounded by how many sphincters:**
 (a) One (b) Two
 (c) Three (d) Four

51. Which bacteria live and actively divide in colon:

- (a) *E.coli* (b) *Salmonella*
(c) *Clostridium* (d) *Mycobacterium*

52. In infants control of egestion is:

- (a) Voluntary (b) Involuntary
(c) Instant (d) Delayed

53. Emulsification of fats is done by:

- (a) Bile (b) Trypsin
(c) Lipase (d) Maltose

54. Pancreatic juice is secreted by which part of pancreas:

- (a) Endocrine portion
(b) Distal portion
(c) Proximal portion
(d) Exocrine portion

55. Endocrine portion of pancreas secrete:

- (a) Gastrin and Secretin
(b) Gastrin and Somatostatin
(c) Insulin and Glucagon
(d) Secretin and cholecystokinin

56. Which hormone are secreted by duodenal walls:

- (a) Secretin and cholecystokinin
(b) Insulin and glucagon
(c) Gastric and secretin
(d) Gastric and somatostatins

57. Liver converts excess glucose into:

- (a) Sucrose (b) Maltose
(c) Glycogen (d) Amylose

58. Urea is synthesized in:

- (a) Liver (b) Kidney
(c) Lungs (d) Heart

ANSWER KEY

1.	d	2.	b	3.	a	4.	c	5.	c	6.	b	7.	b	8.	c
9.	b	10.	c	11.	a	12.	c	13.	a	14.	d	15.	c	16.	d
17.	a	18.	c	19.	a	20.	d	21.	b	22.	a	23.	c	24.	a
25.	c	26.	a	27.	c	28.	a	29.	a	30.	a	31.	b	32.	a
33.	d	34.	c	35.	b	36.	b	37.	c	38.	b	39.	c	40.	a
41.	b	42.	b	43.	a	44.	c	45.	b	46.	d	47.	a	48.	d
49.	b	50.	b	51.	a	52.	b	53.	a	54.	d	55.	c	56.	a
57.	c	58.	a												