

Written Q

1. Enumerate intestinal enzymes of protein digestion ?
2. Compare () pancreatic and gastric lipase ?
3. Mention the effect of pancreatic lipase on TGs? **59 exam**
4. Mention the role of HCL in protein digestion ?
5. Compare () pepsin and trypsin ?
6. Compare () pancreatic enzymes of protein digestion ?
7. Def emulsification and its examples ?
8. Mention character of food passing from stomach to intestine ?

Formative MCQ

<p>1. Trypsinogen is converted to active trypsin by:</p> <ul style="list-style-type: none">a) Enterokinaseb) Bile saltsc) HCld) Mge) pepsin	A
<p>2. Catalytic activity of salivary amylase requires the presence of which of the following?</p> <ul style="list-style-type: none">a) Chloride ionsb) Bromide ionsc) Iodide ionsd) HCle) HCO₃	A

<p>3. Pepsin acts on denatured proteins to produce which of the following?</p> <ul style="list-style-type: none"> a) Amino acids. b) Dipeptides c) Tripeptides d) Proteoses e) Short Polypeptides 	D
<p>4. Which of the following is required for the activity of Pancreatic Phospholipase A?</p> <ul style="list-style-type: none"> a) Bile salts b) Co-lipase c) HCO₃ d) Na⁺ e) Pepsin 	A
<p>5. Which of the following enzymes is an endopeptidase?</p> <ul style="list-style-type: none"> a) aminopeptidase b) carboxypeptidase c) chymotrypsin d) gelatinase e) rennin enzyme 	C
<p>6. Which of the following enzymes is involved in digestion of cooked and uncooked starch?</p> <ul style="list-style-type: none"> a) Gastric amylase b) Intestinal amylase c) Pancreatic amylase d) Salivary amylase e) Salivary lipase 	C

<p>7. The primary enzyme that can digest the uncooked starch is:</p> <ul style="list-style-type: none"> a) Salivary amylase b) Salivary maltase. c) Gastric hydrolase d) Pancreatic amylase e) Intestinal amylase. 	D
<p>8. Bile salts can enhance the following except:</p> <ul style="list-style-type: none"> a) Phospholipase A2. b) Cholesterol esterase. c) Gastric lipase. d) Pancreatic lipase. e) Emulsification of fat 	C
<p>9. Intolerance to table sugar ingestion could be caused from the deficiency of:</p> <ul style="list-style-type: none"> a) Lactase b) Sucrase c) Amylase. d) Hydrolase e) Maltase 	B
<p>10. One of the following has an intracellular enzyme activity:</p> <ul style="list-style-type: none"> a) Salivary amylase. b) Gastric lipase. c) Pancreatic amylase d) Intestinal maltase. e) Intestinal lipase. 	E

<p>11. A digestive enzyme with exopeptidase activity is:</p> <p>a) Pepsinogen b) Trypsinogen c) Carboxypeptidase. d) Chymotrypsinogen. e) Tipeptidase.</p>	C
<p>12. Gastric lipase hydrolyzes triglycerides to form:</p> <p>a) C-monoglycerides. b) 1,2-diglycerides. c) alpha- monoglycerides. d) 3 free fatty acids e) 2 free fatty acids.</p>	B

Other MCQ

<p>1. Which of the following characterizes salivary amylase?</p> <p>a-needs alkaline PH b-hydrolyzes uncooked starch c-hydrolyzes starch completely d-produces dextrin and maltose</p>	D
<p>2. The enzyme trypsin is specific for peptide bonds of:</p> <p>(A) Basic amino acids (B) Acidic amino acids (C) Aromatic amino acids (D) Next to small amino acid residues</p>	A

<p>3. The optimal PH for the enzyme pepsin is:</p> <p>(A) 1.0–2.0 (B) 4.0–5.0 (C) 5.2–6.0 (D) 5.8–6.2</p>	A
<p>4. Pepsinogen is converted to active pepsin by:</p> <p>(A) HCl (B) Bile salts (C) Ca⁺⁺ (D) Enterokinase</p>	A
<p>5. The optimal PH for the enzyme renin is:</p> <p>(A) 2.0 (B) 4.0 (C) 8.0 (D) 6.0</p>	B
<p>6. All the following statements about pepsin are correct except:</p> <p>(A) It is smaller than pepsinogen (B) It is formed by the action of HCl on its precursor (C) Its optimum pH is 1.0–2.0 (D) It hydrolyses the C-terminal and N-terminal peptide bonds of proteins</p>	D
<p>7. Pancreatic juice contains the precursors of all of the following except:</p> <p>(A) Trypsin (B) Chymotrypsin (C) Carboxypeptidase (D) Aminopeptidase</p>	D

<p>8. The most active digestive lipase is:</p> <p>a-lingual</p> <p>b-hepatic</p> <p>c-pancreatic</p> <p>d-gastric</p>	<p>C</p>
<p>9. bile salts help lipid digestion by:</p> <p>a-activation of gastric lipase</p> <p>b-micelle formation</p> <p>c-emulsification</p> <p>d-non of above</p>	<p>C</p>
<p>10. main products of T.G digestion is+ free fatty acids.</p> <p>a-glycerol</p> <p>b-β-mono glyceride</p> <p>c-α-mono glyceride</p> <p>d- γ-mono glyceride</p>	<p>B</p>
<p>11. intestinal lipase digests:</p> <p>a-T.G</p> <p>b-β-mono glyceride</p> <p>c-α-mono glyceride</p> <p>d- γ-mono glyceride</p>	<p>C</p>
<p>12. 72% of β-mono-glyceride is absorbed as:</p> <p>a-they will be hydrolyzed by β-lipase inside intestinal mucosa</p> <p>b-isomerase is very slow in action</p> <p>c-no sufficient pancreatic lipase for their digestion</p> <p>d-all of above</p>	<p>B</p>

<p>13. Chief fat digesting enzyme is found in:</p> <ul style="list-style-type: none"> a) bile b) succus entericus c) gastric juice d) pancreatic juice e) saliva 	D
<p>14. The chief function of bile is to:</p> <ul style="list-style-type: none"> a) digest fats by enzymatic action b) emulsify fats for digestion c) eliminate waste products d) regulate digestion of proteins e) convert maltose to glucose 	B
<p>15. Which of the following statements about the digestion of dietary triacylglycerols is correct?</p> <ul style="list-style-type: none"> a) Dietary triacylglycerols are digested to release three free fatty acid molecules and one glycerol molecule. b) Dietary triacylglycerols release fatty acids directly into the blood when they are digested. c) Dietary triacylglycerols are digested by pancreatic lipase. d) Dietary triacylglycerols are digested by lipoprotein lipase. 	C
<p>16. Chemotrypsin is an example of:</p> <ul style="list-style-type: none"> a) Endopeptidase b) Exopeptidase 	A
<p>17. Amino peptidase is an example of:</p> <ul style="list-style-type: none"> a) Exopeptidase b) Endopeptidase c) Transaminase 	A

<p>18. Which of the following enzymes are more active at pH 3 than pH 7:</p> <p>a) Pepsin b) Trypsin c) Enterokinase d) Pancreatic lipase e) Amylase</p>	A
<p>19. is endopeptidase that catalyzes the hydrolysis of peptide bond formed by small amino acids as glycine, alanine and serine:</p> <p>a) Pepsin b) Trypsin c) Enterokinase d) Elastase</p>	D
<p>20. The enzyme enterokinase is important in the intestinal digestion of dietary protein because it converts:</p> <p>a) Pepsinogen to pepsin b) Procarboxypeptidase A to carboxypeptidase A c) Trypsinogen to trypsin d) Procarboxypeptidase B to carboxypeptidase</p>	C
<p>21. Chymotrypsin:</p> <p>a) Is a gastric enzyme b) Acts on peptide bonds of aromatic AA c) inactive form; chymotrypsinogen is activated by enterokinase enzyme d) It is exopeptidase.</p>	B
<p>22. Exopeptidase acts on peptide bonds of amino acids with free COOH group:</p> <p>a) Rennin b) Trypsin c) Carboxypeptidase d) Aminopeptidase</p>	C

<p>23. Saliva initiate digestion of:</p> <ul style="list-style-type: none"> a) Proteins b) Starch c) Lipids d) Amino acids 	B
<p>24. The salivary amylase:</p> <ul style="list-style-type: none"> a) Is also called ptyalin and it is beta amylase. b) Is the only amylase in GIT. c) Digest mainly cooked starch. d) Is activated by either HCL or Ca^{++} e) Releases free glucose in the stomach. 	C
<p>25. About pepsins:</p> <ul style="list-style-type: none"> a) There are 5 types of exopeptidase enzymes. b) They are secreted by endocytosis as active enzymes. c) They are incapable of autoactivation. d) Their optimum pH of action is 1.6-3.2. e) They don't increase in the cephalic phase of gastric secretions. 	D
<p>26. Chemotrypsinogen in pancreatic juice is activated by:</p> <ul style="list-style-type: none"> a) Enterokinase b) Alkaline PH c) Trypsin d) Bile salts 	C
<p>27. Digestion of proteins by succus entericus enzymes includes all the to enzymes except:</p> <ul style="list-style-type: none"> a) Aminopeptidasc. b) Carboxypeptidase. c) Nucleases. d) Dipeptidase. 	B

<p>28. Enteric lipase splits neutral fat into:</p> <p>a) Fatty acid and glycerol. b) Fatty acid glycerol and monoglycerides. c) Monoglycerides</p>	A
<p>29. Optimum pH for trypsin of pancreatic juice is:</p> <p>a) 1.5-2.5 b) 5.0-5.5 c) 6.0 d) 7.5-8.0 e) 8.5-9.0</p>	D
<p>30. Conversion of pepsinogen to pepsin is catalyzed by:</p> <p>a) Enterokinase b) Trypsinogen c) HCL d) Thrombokinase</p>	C
<p>31. endopeptidase acts on peptide bond of small amino acids.</p> <p>a) Rennin b) Trypsin c) Carboxypeptidase d) Elastase e) Pepsin</p>	D
<p>32. endopeptidase acts on peptide bonds of basic amino acids.</p> <p>a) Rennin b) Trypsin c) Carboxypeptidase d) Aminopeptidase e) Pepsin</p>	B

<p>33. endopeptidase acts on peptide bonds of aromatic amino acid.</p> <p>a) Rennin b) Trypsin c) Carboxypeptidase d) Aminopeptidase e) Pepsin</p>	E
<p>34. The End product of Gastric lipase is:</p> <p>a) Glycerol and FFA b) MAG + FFA c) 1.2 DAG and FFA d) lysophospholipid</p>	C
<p>35. The optimum PH for action of Gastric lipase is:</p> <p>a) 3-6 b) 1.5-2 c) 7-8 d) 4</p>	A
<p>36. The following enzymes are activated by autoactivation:</p> <p>a) amylase & pepsin b) pepsin & chymotrypsin c) trypsin & pepsin d) elastase & carboxypeptidase</p>	C
<p>37. Milk clotting enzyme:</p> <p>a) enterokinase b) disaccharidase c) intestinal lipase d) carboxy peptidase e) rennin</p>	E

<p>38. Milk clotting enzyme act in PH:</p> <ul style="list-style-type: none"> a) 3-6 b) 1.5-2 c) 7-8 d) 4 	D
<p>39. Role of HCL in protein digestion is:</p> <ul style="list-style-type: none"> a) activation of trypsinogen b) denaturate protein c) hydrolysis of poly peptide d) Make PH of stomach suitable for action of chymotrypsin 	B
<p>40. Bile salts activate the following enzymes:</p> <ul style="list-style-type: none"> a) phospholipase A2 and cholesterol esterase b) Pepsinogen & proelastase c) amylase & pepsin d) pepsin & chymotrypsin 	A
<p>41. The major enzyme acting on TG is:</p> <ul style="list-style-type: none"> a) Pancreatic amylase b) pancreatic lipase c) Gastric lipase d) lingual lipase e) phosphatase 	B
<p>42. Emulsification of lipids in the mouth occurs via:</p> <ul style="list-style-type: none"> a) Chewing. b) Contraction. c) Peristalsis. d) Gravity. e) Concentration gradient. 	A

<p>43. The major form of TG absorbed into intestinal wall is:</p> <ul style="list-style-type: none"> a) α monoglyceride b) β monoglycerides c) Glycerol d) Fatty acids e) Cholesterol 	B
<p>44. Intestinal lipase enzyme acts on:</p> <ul style="list-style-type: none"> a) α monoglyceride b) β monoglycerides c) TG d) Phospholipids e) Cholesterol esters 	A
<p>45. The major End product of action of pancreatic lipase is:</p> <ul style="list-style-type: none"> a) α monoglyceride b) β monoglycerides c) Glycerol d) Fatty acids e) Cholesterol 	B
<p>46. About glucose absorption all the following is true except:</p> <ul style="list-style-type: none"> a) It is an active process b) It is completed only in the presence of insulin c) It requires a specific carrier d) It occurs mainly in the small intestine and depends on active Na transport 	B

47. Which of the following is absorbed by facilitated diffusion from the

intestinal brush border?

a-Fructose.

b-Galactose.

c-Glucose.

d-Phenyl alanine.

e-Tyrosine.

A