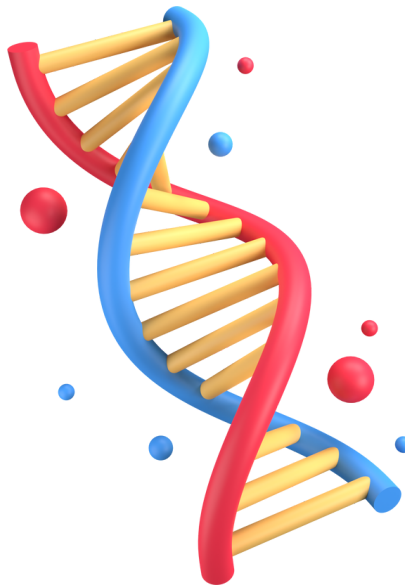


ZOOLOGY

ENTHUSIAST | LEADER | ACHIEVER



EXERCISE

Digestion and Absorption

ENGLISH MEDIUM

EXERCISE-I (Conceptual Questions)

Build Up Your Understanding

ALIMENTARY CANAL (MOUTH TO ANUS)

- Parietal cells of mucosa in stomach secrete:
(1) Mucin (2) Pepsin
(3) HCl (4) All of the above
DS0001
- Which cells of mucous layer of stomach secrete pepsinogen?
(1) Chief cell (2) Goblet cell
(3) Parietal cell (4) Oxyntic cell
DS0004
- Innermost layer of mucosa is made up of columnar epithelium except :-
(1) Oesophagus (2) Duodenum
(3) Intestine (4) Stomach
DS0005
- How many teeth in man grows twice in life:
(1) 32 (2) 28
(3) 20 (4) 12
DS0006
- In human which teeth help in cutting ?
(1) Canine (2) Incisor
(3) Molar (4) Premolar
DS0007

DIGESTIVE GLANDS

- In human being sphincter of Oddi is situated in :-
(1) Common bile duct
(2) Ampulla of Vater
(3) Main pancreatic duct
(4) Common hepatic duct
DS0009
- Ptyalin is secreted by-
(1) Stomach (2) Salivary gland
(3) Pancreas (4) Bile
DS0010
- Ptyalin, an enzyme work in saliva in -
(1) Alkaline medium
(2) almost neutral medium
(3) Acidic medium
(4) all media
DS0011

- In pancreas, pancreatic juice and hormone are secreted by-
(1) Islets of Langerhans
(2) Cells of Acini and Islets of Langerhans respectively
(3) Islets of Langerhans and cells of Acini respectively
(4) None of these.
DS0012
- C-shaped widest part of intestine
(1) Pancreas (2) Liver
(3) Duodenum (4) Thyroid
DS0013
- Which substance destroy the harmful bacteria in stomach?
(1) Cerumin (2) Chyme
(3) HCl (4) Secretin
DS0014
- One of the following is not a constituent of saliva:-
(1) Bicarbonate (2) Lysozyme
(3) Glucose (4) Immunoglobulin
DS0015
- What statement is wrong about bile ?
(1) It is necessary for fat digestion
(2) It is stored in the gall bladder
(3) It is important only for normal digestion of sugar
(4) It activates lipase
DS0016
- Which of the following is a function of gall bladder?
(1) Deamination
(2) Bile storage
(3) Synthesis of plasma protein
(4) Storage of fat soluble vitamin
DS0017
- Crypts of Lieberkuhn are found in between the villi. They secrete :
(1) Glucagon (2) Succus entericus
(3) Insulin (4) Gastric juice
DS0018

16. Parotid salivary glands are present :

- (1) Below the tongue
- (2) Below the ears
- (3) Below the eye orbits
- (4) In the angle between two jaws

DS0019

17. Specific cells found in liver are :

- (1) Enterocyte cells
- (2) Beta cells
- (3) Hepatic cells
- (4) Islets of Langerhans

DS0021

PHYSIOLOGY OF DIGESTION AND OTHERS

18. Casein present in milk, which is -

- (1) bacterium
- (2) sugar
- (3) protein
- (4) fat

DS0023

19. Amylase enzyme acts on the -

- (1) Starch
- (2) Protein
- (3) Fat
- (4) Cane sugar

DS0024

20. Liver cells secrete-

- (1) amylopsin
- (2) trypsin
- (3) lipase
- (4) bile

DS0025

21. Peristaltic movements found in different parts of alimentary canal. In which one of these there is least peristalsis-

- (1) Stomach
- (2) Duodenum
- (3) Rectum
- (4) Oesophagus

DS0026

22. Milk protein is curdled into calcium paracaseinate by -

- (1) Maltose
- (2) Rennin
- (3) Trypsin
- (4) lactose

DS0027

23. The enzyme invertase (sucrase) hydrolyses-

- (1) Glucose into sucrose
- (2) Sucrose into glucose and fructose
- (3) Starch into maltose
- (4) Starch into sucrose

DS0028

24. Amino acids are absorbed in-

- (1) Blood capillaries of villi
- (2) Wall of rectum
- (3) lacteals and blood capillaries of villi
- (4) lacteals of villi

DS0029

25. Digestion of carbohydrate is affected by-

- (1) Amylopsin
- (2) Lipase
- (3) Erepsin
- (4) Pepsin

DS0030

26. Trypsin is secreted by-

- (1) Pancreas
- (2) Stomach
- (3) Liver
- (4) Ileum

DS0031

27. Proteins are broken down into amino acids in-

- (1) Buccal cavity
- (2) Stomach
- (3) Intestine
- (4) Rectum

DS0032

28. Which reserve food is consumed by man during starvation?

- (1) Fat
- (2) Protein
- (3) Glucose
- (4) Vitamin

DS0033

29. Ptyalin cannot work in stomach, because it becomes-

- (1) Inactive due to HCl
- (2) Inactive due to renin
- (3) Inactive due to pepsin
- (4) None of these

DS0034

30. What is the important function of bile-

- (1) Emulsification of fats
- (2) Elimination of excretory products
- (3) For digestion by enzymes
- (4) Coordination of digestive activities

DS0035

31. Some proteolytic enzymes are-

- (1) Trypsin, Erepsin, Pepsin
- (2) Amylase, Lipase, Zymase
- (3) Amylopsin, Steapsin, Ptyalin
- (4) Urease, Dehydrogenase, Zymase

DS0036

32. Succus entericus is secreted by-
 (1) Gastric glands
 (2) Islets of langerhans
 (3) Crypts of lieberkuhn & Brunner's gland
 (4) Goblet cells
DS0037
33. Glycogen is stored in-
 (1) Blood (2) Liver
 (3) Lungs (4) Kidney
DS0038
34. Chymotrypsin is-
 (1) Proteolytic enzyme
 (2) Fat digestive enzyme
 (3) Vitamin
 (4) Hormone
DS0039
35. Emulsification of fats by bile takes place in-
 (1) Duodenum (2) Liver
 (3) Stomach (4) Intestine
DS0040
36. Absorption of digested food chiefly occurs in-
 (1) Stomach (2) Colon
 (3) Small Intestine (4) Large Intestine
DS0041
37. The enzyme trypsinogen is secreted from-
 (1) Duodenum (2) Pancreas
 (3) Liver (4) Stomach
DS0042
38. Enzyme pepsin acts upon food at a pH of about-
 (1) 1.8 to split proteins
 (2) 2 to split carbohydrate
 (3) 7 to change protein into peptones
 (4) 2 to change protein in amino acids
DS0043
39. Our food mainly contains-
 (1) Carbohydrates (2) Cellulose
 (3) Sucrose (4) Glucose
DS0044
40. Which one differ from the category of other three-
 (1) Gastrin (2) Glucagon
 (3) Secretin (4) Ptyalin
DS0045
41. A carbohydrate splitting enzyme is secreted by -
 (1) Liver
 (2) Zymogen cells of gastric glands
 (3) Spleen
 (4) Crypts of Lieberkuhn
DS0046
42. Stomach is the main site for the digestion of -
 (1) Fats (2) Carbohydrate
 (3) Protein (4) All of these
DS0047
43. The hormone involved in the discharge of pancreatic juice in mammal is called-
 (1) Gastrin (2) Secretin
 (3) Secretin & CCK (4) Enterogasterone
DS0048
44. Function of HCl in stomach is to-
 (1) Kill micro-organism of food
 (2) Facilitate absorption of food
 (3) Dissolve hormones secreted by gastric glands
 (4) Active trypsinogen to trypsin
DS0049
45. Enzyme **maltase** in human gut acts on food at a pH of -
 (1) More than 7 to change starch into maltose.
 (2) Less than 7 to change starch into maltose.
 (3) More than 7 to change maltose into glucose.
 (4) Less than 7 to change maltose into glucose.
DS0050
46. Simple sugar of blood is-
 (1) Dextrin (2) Lactose
 (3) Sucrose (4) Glucose
DS0051
47. During prolonged starvation, body derives nutrition from storage of -
 (1) Liver and adipose tissue
 (2) Spleen
 (3) Liver and lungs
 (4) Subcutaneous fat and Pancreas
DS0052

- 48.** Enterokinase stimulates which of the following-
 (1) Pepsinogen (2) Trypsin
 (3) Pepsin (4) Trypsinogen
DS0053
- 49.** Maximum digestion of food take place in –
 (1) Stomach (2) Jejunum
 (3) Colon (4) Duodenum
DS0054
- 50.** Absence of which of these in bile will make fat digestion difficult-
 (1) Cholesterol (2) Bile salts
 (3) Pigment (4) Acids
DS0055
- 51.** Pancreatic juice is released into-
 (1) Duodenum (2) Ileum
 (3) Stomach (4) Jejunum.
DS0056
- 52.** The enzyme that catalyse the changing of emulsified fats to fatty acids and glycerol is-
 (1) Pepsin (2) Lipase
 (3) Amylase (4) Sucrose
DS0057
- 53.** Point out the odd one-
 (1) Rennin (2) Secretin
 (3) Calcitonin (4) Oxytocin
DS0058
- 54.** Pancreatic lipase acts upon-
 (1) Glycogen (2) Triglycerides
 (3) Dissacharides (4) Polypeptides
DS0059
- 55.** Bile is formed in-
 (1) Gall bladder (2) Liver
 (3) Spleen (4) Blood
DS0060
- 56.** Cholecystokinin is secretion of
 (1) Duodenum that causes contraction of gall bladder
 (2) Goblet cells of ileum stimulates secretion of succus entericus
 (3) Liver and controls secondary sex characters
 (4) Stomach that stimulates pancreas to release juice
DS0061
- 57.** Enzyme trypsinogen is changed to trypsin by
 (1) Gastrin
 (2) Enterogastrone
 (3) Enterokinase
 (4) Secretin
DS0062
- 58.** Castle's intrinsic factor is connected with internal absorption of-
 (1) Pyridoxine
 (2) Riboflavin
 (3) Thiamine
 (4) Cyanocobalamine
DS0063
- 59.** Cholesterol is synthesized in-
 (1) Brunner's gland
 (2) Liver
 (3) Spleen
 (4) Pancreas
DS0065
- 60.** Rennin acts on-
 (1) Milk changing casein into calcium paracaseinate at 7.2 - 8.2 pH
 (2) Proteins in stomach
 (3) Fat in intestine
 (4) Milk, changing casein into calcium paracaseinate at 1-3 pH
DS0066
- 61.** Lacteals take part in -
 (1) Digestion of milk
 (2) Absorption of fat
 (3) Digestion of lactic acid
 (4) None of the above
DS0067
- 62.** Fatty acids and glycerol are first absorbed by-
 (1) Lymph vessels
 (2) Blood
 (3) Blood capillaries
 (4) Hepatic portal Vein
DS0069

63. During prolonged fasting-
 (1) First fats are used up, followed by carbohydrate from liver and muscles, and protein in the end
 (2) First carbohydrate are used up, followed by fat and proteins towards end
 (3) First lipids, followed by proteins and carbohydrates towards end.
 (4) None of the above
DS0070
64. Which of the following is absorbed in ileum-
 (1) Fat
 (2) Bile salts
 (3) Vit-K
 (4) Glucose
DS0071
65. Which food substance is absorbed, without digestion?
 (1) Carbohydrates
 (2) Proteins
 (3) Vitamins
 (4) Fats
DS0072
66. Mucus is secreted by the :-
 (1) Stomach
 (2) Duodenum
 (3) Large intestine
 (4) All of the above
DS0073
67. Water absorption mainly occur in :-
 (1) Buccal cavity
 (2) Intestine
 (3) Stomach
 (4) Appendix
DS0074
68. Which of the following absorbed in proximal intestine?
 (1) Iron
 (2) Sodium
 (3) Bile salts
 (4) Vitamin B₁₂
DS0075
69. Substances which are not related with hepatic portal circulation :-
 (1) Amino acid
 (2) Fatty acid
 (3) Glucose
 (4) Electrolytes
DS0076
70. Jaundice is a disorder of :
 (1) Skin and eyes
 (2) Digestive system
 (3) Circulatory system
 (4) Excretory system
DS0077
71. Lactose composed of :-
 (1) Glucose + galactose
 (2) Glucose + fructose
 (3) Glucose + glucose
 (4) Glucose + mannose
DS0078
72. If for some reason the parietal cells of the gut epithelium become partially non-functional, what is likely to happen ?
 (1) The pH of stomach will fall abruptly
 (2) Steapsin will be more effective
 (3) Proteins will not be adequately hydrolysed by pepsin into proteoses and peptones
 (4) The pancreatic enzymes and specially the trypsin and lipase will not work efficiently
DS0079
73. In stomach after physical and chemical digestion food is called:-
 (1) Chyme (2) Chyle
 (3) Amino acid (4) Bolus
DS0080
74. Fully digested food reaches to liver by
 (1) Hepatic portal vein
 (2) Hepatic artery
 (3) Hepatic vein
 (4) All the above
DS0081

75. A person who is eating rice. His food contains
(1) Cellulose (2) Starch
(3) Lactose (4) Protein
DS0082
76. In mammals, milk is digested by action of-
(1) Rennin
(2) Amylase
(3) Intestinal bacteria
(4) Invertase
DS0083
77. Stool of a person contain whitish grey colour due to malfunctioning of :-
(1) Pancreas (2) Spleen
(3) Kidney (4) Liver
DS0084
78. Which of the following is a disachharide :-
(1) Glucose (2) Fructose
(3) Sucrose (4) Galactose
DS0085
79. If all the peptide bonds of protein are broken, then the remaining part is :-
(1) Amide
(2) Oligosaccharide
(3) Polypeptide
(4) Amino acid
DS0086
80. Hydrolysis of lipid yields :-
(1) Fats
(2) Fatty acids and glycerol
(3) Mannose and glycerol
(4) Maltose and fatty acid
DS0087
81. Stomach in vertebrates is the main site for digestion of :
(1) Proteins (2) Carbohydrates
(3) Fats (4) Nucleic acids
DS0090
82. The chief function of bile is to :
(1) Digest fat by enzymatic action
(2) Emulsify fats for digestion
(3) Eliminate waste products
(4) Regulate digestion of proteins
DS0091
83. The toxic substance are detoxicated in the human body by :
(1) Lungs (2) Kidneys
(3) Liver (4) Stomach
DS0092
84. The end product of carbohydrate digestion is :-
(1) glucose
(2) amino acids
(3) vitamins
(4) minerals
DS0093
85. The muscular contraction in the alimentary canal is known as :
(1) Systole (2) Diastole
(3) Peristalsis (4) Spasm
DS0094
86. End products of protein hydrolysis are :
(1) Mixture of amino acids
(2) Sugars
(3) Peptides
(4) 25 amino acids
DS0095
87. Ptyalin is an enzyme of
(1) Salivary juice
(2) Pancreatic juice
(3) Intestinal juice
(4) Bile
DS0096
88. The hormone 'secretin' stimulates secretion of
(1) Pancreatic juice (2) Intestinal juice
(3) Salivary juice (4) Gastric juice
DS0097
89. Succus entericus is also called are:
(1) Gastric juice (2) Intestinal juice
(3) Bile juice (4) Saliva
DS0099
90. Just as hydrochloric acid is for pepsinogen, so is the:
(1) Haemoglobin to oxygen
(2) Enterokinase to trypsinogen
(3) Bile juice to fat
(4) Glucagon to glycogen
DS0100

91. Where the lysozymes are found :
 (1) In saliva and tears both
 (2) In tears
 (3) In saliva
 (4) In mitochondria
DS0101
92. The major site of protein breakdown to form free amino acids, is in the
 (1) Kidney (2) Spleen
 (3) Intestine (4) Bone-marrow
DS0102
93. Trypsin differs from pepsin because it digests :
 (1) Carbohydrate in alkaline medium in stomach
 (2) Protein, in alkaline medium in stomach
 (3) Protein, in acidic medium of stomach
 (4) Protein, in alkaline medium in duodenum
DS0103
94. Pancreatic juice is :
 (1) Alkaline in nature
 (2) Acidic in nature
 (3) Neutral in nature
 (4) Both acidic and alkaline in nature
DS0104
95. Bilirubin and Biliverdin are present in :
 (1) Pancreatic Juice (2) Saliva
 (3) Bile juice (4) Intestinal juice
DS0105
96. The function of Gastrin hormone is :
 (1) To control excretion
 (2) To inhibit gastric juice secretion
 (3) Regulate the absorption of food
 (4) To stimulate gastric glands to release gastric juice
DS0107
97. What is the common passage for bile and pancreatic juices?
 (1) Ampulla of Vater
 (2) Ductus Choledochus
 (3) Duct of Wirsung
 (4) Duct of Santorini
DS0108
98. Pepsinogen is secreted from :
 (1) Oxyntic cells (2) Goblet cells
 (3) Chief cells (4) Parietal cells
DS0109
99. Cells of the pancreas is not digested by their own enzymes because :
 (1) Enzymes are secreted in inactive form
 (2) Cells are lined by mucous membrane
 (3) Enzymes are released only when needed
 (4) None of the above
DS0110
100. Secretin :
 (1) Stimulates enzymes secretion by pancreas, inhibits acid secretion in stomach, stimulates gall bladder
 (2) Stimulates bicarbonate secretion by pancreas, inhibits acid secretion in stomach, stimulates bicarbonate secretion by liver
 (3) Stimulates acid secretion in stomach, potentiates action of CCK, inhibits intestinal movement
 (4) Stimulates gall bladder, inhibits acid secretion in stomach, stimulates bicarbonate secretion by pancreas
DS0111
101. To get ample supply of carbohydrates, one should eat -
 (1) Meat (2) Gram
 (3) Carrots (4) Rice
DS0114
102. Protein are mainly required in the body for-
 (1) Growth (2) Repair
 (3) Both of these (4) None of these
DS0115
103. Rickets is caused by the deficiency of-
 (1) Vit A (2) Vit C
 (3) Vit D (4) Vit B
DS0117
104. Pernicious anaemia is caused by deficiency of vitamin-
 (1) C (2) B₁ (3) B₁₂ (4) B₆
DS0118

- 105.** Another substance of the category of glucose, sucrose and maltose is-
 (1) Myoglobin
 (2) Starch
 (3) Amino acids
 (4) Haemoglobin
DS0119
- 106.** Rickets is a disease of which category-
 (1) Infective disease
 (2) Deficiency disease
 (3) Communicable disease
 (4) Inheritable disease
DS0121
- 107.** Thiamine is another name for-
 (1) Vit B₂ (2) Vit A
 (3) Vit B₁ (4) Vit B Complex
DS0122
- 108.** Vit D is also called-
 (1) Calciferol (2) Ascorbic acid
 (3) Retinol (4) Folic Acid
DS0123
- 109.** In mammals carbohydrate are stored in the form of-
 (1) Lactic acid in muscles
 (2) Glycogen in liver and muscles
 (3) Glucose in liver and muscles
 (4) Glycogen in liver and spleen
DS0124
- 110.** Which pairing is not correct?
 (1) Vit D –Rickets
 (2) Vit K - Sterility
 (3) Thiamine - Beri-Beri
 (4) Niacin - Pellagra
DS0125
- 111.** Beri-Beri, Scurvy and Rickets are respectively caused by deficiency of -
 (1) B, D & C (2) B, C & D
 (3) D, B & A (4) A, D & C
DS0127
- 112.** Vitamin which induces maturation of R.B.C.:-
 (1) B₁ (2) A (3) B₁₂ (4) D
DS0131
- 113.** Which one is wrong pair?
 (1) Scurvy – Vitamin C
 (2) Rickets – Vitamin D
 (3) Night blindness – Vitamin A
 (4) Beriberi – Vitamin K
DS0132
- 114.** Which one is correctly matched?
 (1) Vit. E – Tocoferol
 (2) Vit. D – Riboflavin
 (3) Vit. B – Calciferol
 (4) Vit. A – Thiamine
DS0133
- 115.** Vitamin–C is :-
 (1) Ascorbic acid
 (2) Citric acid
 (3) Phosphoric acid
 (4) Glutamic acid
DS0134
- 116.** Which one of the following is the correct matching of a vitamin, its nature and its deficiency disease ?
 (1) Vitamin K–Fat soluble–Beri–Beri
 (2) Vitamin A–Fat soluble–Beri–Beri
 (3) Vitamin K– Water soluble–Pellagra
 (4) Vitamin A – Fat soluble–Night blindness
DS0135
- 117.** Scurvy disease is due to :
 (1) Presence of h-factor in blood
 (2) Deficiency of vitamin E
 (3) Virus
 (4) Deficiency of vitamin C
DS0136
- 118.** In adults the deficiency of vitamin D causes:
 (1) Rickets (2) Beri-beri
 (3) Scurvy (4) Osteomalacia
DS0137
- 119.** Marasmus disease is caused due to :
 (1) Protein deficiency
 (2) Obesity
 (3) Dwarfism
 (4) Deficiency of vitamins
DS0139

120. Which of the following does not belong to vitamin B group?

- (1) Riboflavin (2) Niacin
(3) Cyanocobalamine (4) Tocopherol

DS0140

121. Deficiency of thiamine causes :

- (1) Beri-beri (2) Rickets
(3) Caries (4) Pellagra

DS0142

EXERCISE-I (Conceptual Questions)

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	1	1	3	2	2	2	2	2	3	3	3	3	2	2
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	2	3	3	1	4	3	2	2	1	1	1	3	1	1	1
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	1	3	2	1	1	3	2	1	1	4	4	3	3	1	3
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	4	1	4	4	2	1	2	1	2	2	1	3	4	2	4
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	2	1	2	2	3	4	2	1	2	2	1	3	1	1	2
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	1	4	3	4	2	1	2	3	1	3	1	1	1	2	2
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	1	3	4	1	3	4	1	3	1	2	4	3	3	3	2
Que.	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans.	2	3	1	2	2	2	3	4	1	1	4	4	4	1	4
Que.	121														
Ans.	1														

EXERCISE-II (Previous Year Questions)

AIPMT 2007

1. Which one of the following is a fat-soluble vitamin and its related deficiency disease ?
- (1) Calciferol – Pellagra
(2) Ascorbic acid – Scurvy
(3) Retinol – Xerophthalmia
(4) Cobalamine – Beri-beri

DS0145

AIPMT 2008

2. Which one of the following is the **correct matching** of the site of action on the given substrate, the enzyme acting upon it and the end product ?
- (1) *Small intestine*:Proteins $\xrightarrow{\text{Pepsin}}$ Amino acids
(2) *Stomach* : Fats $\xrightarrow{\text{Lipase}}$ micelles
(3) *Duodenum* : Triglycerides $\xrightarrow{\text{Trypsin}}$ monoglycerides
(4) *Small intestine* : Starch $\xrightarrow{\alpha\text{-Amylase}}$ Disaccharide (Maltose)

DS0146

3. What will happen if the secretion of parietal cells of gastric glands is blocked with an inhibitor ?
- (1) In the absence of HCl secretion, inactive pepsinogen is not converted into the active enzyme pepsin
(2) Enterokinase will not be released from the duodenal mucosa and so trypsinogen is not converted to trypsin
(3) Gastric juice will be deficient in chymosin
(4) Gastric juice will be deficient in pepsinogen

DS0147

AIPMT 2009

4. Which one of the following pairs of food components in humans reaches the stomach totally undigested?
- (1) Starch and cellulose
(2) Protein and starch
(3) Starch and fat
(4) Fat and cellulose

DS0148

AIPMT/NEET

5. A young infant that feeds entirely on mother's milk which is white in colour but the stools which the infant passes out is quite yellowish. This yellow colour due to ?
- (1) Pancreatic juice poured into duodenum
(2) Intestinal juice
(3) Bile pigments passed through bile juice
(4) Undigested milk protein casein

DS0149

AIPMT 2014

6. The initial step in the digestion of milk in humans is carried out by ?
- (1) Lipase
(2) Trypsin
(3) Rennin
(4) Pepsin

DS0153

AIPMT 2015

7. Gastric juice of infants contains :-
- (1) nuclease, pepsinogen, lipase
(2) pepsinogen, lipase, rennin
(3) amylase, rennin, pepsinogen
(4) maltase, pepsinogen, rennin

DS0154

NEET-I 2016

8. In the stomach, gastric acid is secreted by the :-
- (1) gastrin secreting cells
(2) parietal cells
(3) peptic cells
(4) acidic cells

DS0155

9. Which of the following guards the opening of hepatopancreatic duct into the duodenum ?
- (1) Semilunar valve
(2) Ileocaecal valve
(3) Pyloric sphincter
(4) Sphincter of Oddi

DS0156

NEET-II 2016

10. Which hormones do stimulate the production of pancreatic juice and bicarbonate?

(1) Cholecystokinin and secretin
(2) Insulin and glucagon
(3) Angiotensin and epinephrine
(4) Gastrin and insulin

DS0157

NEET(UG) 2017

11. Which cells of "Crypts of Lieberkuhn" secrete antibacterial lysozyme ?

(1) Paneth cells (2) Zymogen cells
(3) Kupffer cells (4) Argentaffin cells

DS0160

12. The hepatic portal vein drains blood to liver from :

(1) Stomach (2) Kidneys
(3) Intestine (4) Heart

DS0256

13. Which of the following options best represents the enzyme composition of pancreatic juice ?

(1) amylase, pepsin, trypsinogen, maltase
(2) peptidase, amylase, pepsin, rennin
(3) lipase, amylase, trypsinogen, procarboxypeptidase
(4) amylase, peptidase, trypsinogen, rennin

DS0161

14. A baby boy aged two years is admitted to play school and passes through a dental check - up. The dentist observed that the boy had twenty teeth. Which teeth were absent?

(1) Canines (2) Pre-molars
(3) Molars (4) Incisors

DS0162

NEET(UG) 2018

15. Which of the following terms describe human dentition ?

(1) Thecodont, Diphyodont, Homodont
(2) Thecodont, Diphyodont, Heterodont
(3) Pleurodont, Monophyodont, Homodont
(4) Pleurodont, Diphyodont, Heterodont

DS0165

16. Which of the following gastric cells indirectly help in erythropoiesis ?

(1) Chief cells
(2) Mucous cells
(3) Goblet cells
(4) Parietal cells

DS0166

NEET(UG) 2019

17. Identify the cells whose secretion protects the lining of gastro-intestinal tract from various enzymes :-

(1) Chief Cells
(2) Goblet Cells
(3) Oxyntic Cells
(4) Duodenal Cells

DS0257

18. Match the following structures with their respective location in organs :

(a) Crypts of Lieberkuhn (i) Pancreas
(b) Glisson's Capsule (ii) Duodenum
(c) Islets of Langerhans (iii) Small intestine
(d) Brunner's Glands (iv) Liver

Select the **correct** option from the following :

	(a)	(b)	(c)	(d)
(1)	(iii)	(i)	(ii)	(iv)
(2)	(ii)	(iv)	(i)	(iii)
(3)	(iii)	(iv)	(i)	(ii)
(4)	(iii)	(ii)	(i)	(iv)

DS0258

NEET(UG) 2019 (ODISHA)

19. Match the items given in column I with those in column II and choose the correct option :

Column-I	Column-II
(a) Rennin	(i) Vitamin B ₁₂
(b) Enterokinase	(ii) Facilitated transport
(c) Oxyntic cells	(iii) Milk proteins
(d) Fructose	(iv) Trypsinogen

(1) a-iii, b-iv, c-ii, d-i
(2) a-iv, b-iii, c-i, d-ii
(3) a-iv, b-iii, c-ii, d-i
(4) a-iii, b-iv, c-i, d-ii

DS0259

20. Kwashiorkor disease is due to :-
- (1) Simultaneous deficiency of proteins and fats
 - (2) Simultaneous deficiency of proteins and calories
 - (3) Deficiency of carbohydrates
 - (4) Protein deficiency not accompanied by calorie deficiency

DS0260

NEET(UG) 2020

21. Goblet cells of alimentary canal are modified from :
- (1) Compound epithelial cells
 - (2) Squamous epithelial cells
 - (3) Columnar epithelial cells
 - (4) Chondrocytes

DS0261

22. The enzyme enterokinase helps in conversion of :
- (1) pepsinogen into pepsin
 - (2) protein into polypeptides
 - (3) trypsinogen into trypsin
 - (4) caseinogen into casein

DS0262

23. Identify the **correct** statement with reference to human digestive system.
- (1) Vermiform appendix arises from duodenum
 - (2) Ileum opens into small intestine
 - (3) Serosa is the innermost layer of the alimentary canal
 - (4) Ileum is highly coiled part

DS0263

NEET(UG) 2020 (COVID-19)

24. Intrinsic factor that helps in the absorption of vitamin B₁₂ is secreted by :-
- (1) Goblet cells
 - (2) Hepatic cells
 - (3) Oxyntic cells
 - (4) Chief cells

DS0264

25. The proteolytic enzyme rennin is found in :
- (1) Intestinal juice
 - (2) Bile juice
 - (3) Gastric juice
 - (4) Pancreatic juice

DS0265

NEET(UG) 2021

26. Succus entericus is referred to as :
- (1) Pancreatic juice
 - (2) Intestinal juice
 - (3) Gastric juice
 - (4) Chyme

DS0266

27. Sphincter of Oddi is present at :
- (1) Ileo-caecal junction
 - (2) Junction of hepato-pancreatic duct and duodenum
 - (3) Gastro-oesophageal junction
 - (4) Junction of jejunum and duodenum

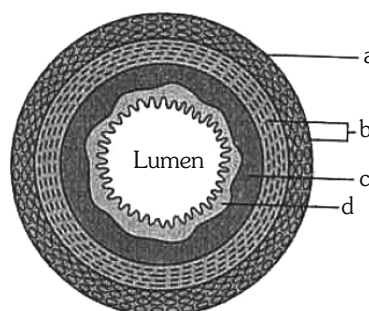
DS0267

NEET(UG) 2021 (Paper-2)

28. Which of the following types of teeth differ in number in deciduous teeth and adult teeth ?
- | | |
|-----------------|---------------|
| (a) Incisors | (b) Canine |
| (c) Molars | (d) Premolars |
| (1) (a) and (b) | (2) (c) only |
| (3) (c) and (d) | (4) (d) only |

DS0269

29. Which layer has goblet cells ?



- | | | | |
|-------|-------|-------|-------|
| (1) a | (2) b | (3) c | (4) d |
|-------|-------|-------|-------|

DS0270

30. Villi and rugae are the folds of which layer of alimentary canal ?
- | | |
|----------------|----------------|
| (1) Serosa | (2) Muscularis |
| (3) Sub-mucosa | (4) Mucosa |

DS0271

NEET(UG) 2022

31. Which of the following functions is **not** performed by secretions from salivary glands?
- (1) Digestion of complex carbohydrates
 - (2) Lubrication of oral cavity
 - (3) Digestion of disaccharides
 - (4) Control bacterial population in mouth

DS0272

32. Given below are two statements:

Statement I:

Fatty acids and glycerols cannot be absorbed into the blood.

Statement II:

Specialized lymphatic capillaries called lacteals carry chylomicrons into lymphatic vessels and ultimately into the blood.

In the light of the above statements, choose the **most appropriate** answer from the options given below:

- (1) Both **Statement I** and **Statement II** are incorrect
- (2) **Statement I** is correct but **Statement II** is incorrect
- (3) **Statement I** is incorrect but **Statement II** is correct
- (4) Both **Statement I** and **Statement II** are correct

DS0273**NEET(UG) 2022 (OVERSEAS)**

33. An intestinal hormone that stimulates the pancreas to release watery secretion that is rich in bicarbonate ions :

- (1) Gastric Inhibitory Peptide
- (2) Enterokinase
- (3) Secretin
- (4) Cholecystokinin

DS0274

34. Chylomicrons are :

- (1) micro-sized lipid molecules
- (2) protein coated fat globules
- (3) spherical aggregates of fatty acids
- (4) fat coated protein globules

DS0275**Re-NEET(UG) 2022**

35. Choose the incorrect enzymatic reaction :

- (1) Maltose $\xrightarrow{\text{Maltase}}$ Glucose + Galactose
- (2) Sucrose $\xrightarrow{\text{Sucrase}}$ Glucose + Fructose
- (3) Lactose $\xrightarrow{\text{Lactase}}$ Glucose + Galactose
- (4) Dipeptides $\xrightarrow{\text{Dipeptidases}}$ Amino acids

DS0276

36. Role of enamel is to :

- (1) Connect crown of tooth with its root.
- (2) Masticate the food.
- (3) Form bolus.
- (4) Give basic shape to the teeth.

DS0277**EXERCISE-II (Previous Year Questions)****ANSWER KEY**

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	4	1	4	3	3	2	2	4	1	1	3	3	2	2
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	4	2	3	4	4	3	3	4	3	3	2	2	3	4	4
Que.	31	32	33	34	35	36									
Ans.	3	4	3	2	1	2									

EXERCISE-III

Master Your Understanding

EXERCISE-III(A) (NCERT BASED QUESTIONS)

1. Select the incorrect statements :-
 (a) alimentary canal begins with an anterior cavity called buccal cavity.
 (b) tooth is embedded in a socket of mandible bone only.
 (c) human shows strict diphyodont type of dentition.
 (d) oesophagus and the trachea open into the pharynx.
 (1) a, b, c & d (2) a, b & c
 (3) a, c & d (4) a, b & d

DS0172

2. The oesophagus is a thin, long tube which extends _____ passing through the neck.
 (1) Anteriorly
 (2) Posteriorly
 (3) Horizontally
 (4) Obliquely

DS0173

3. In human _____ is a small blind sac, which hosts some symbiotic micro-organism.
 (1) Caecum
 (2) Colon
 (3) Rumen
 (4) All of these

DS0174

4. Select the correct structural sequence of alimentary canal facing from inside to outside.
 (1) Serosa → Muscularis → Submucosa → Mucosa
 (2) Muscularis → Serosa → Mucosa → Submucosa
 (3) Mucosa → Submucosa → Muscularis → Serosa
 (4) Submucosa → Mucosa → Muscularis → Serosa

DS0175

5. All of the following are correct with respect to intestine of human except.
 (1) Colon having ascending, descending and transverse part.
 (2) Duodenum is C-shaped structure
 (3) Taenae & haustra is present all along the length of intestine.
 (4) Highly developed villi is restricted to small intestine.

DS0176

6. Select the correct statements.
 (a) Salivary glands situated just outside the buccal cavity.
 (b) Liver is the largest digestive gland.
 (c) Hepatic duct not arise from gall bladder.
 (d) Sphincter of Oddi can regulate the release of pancreatic and bile juice in duodenum.
 (1) a, b, c & d (2) a, b & d
 (3) b, c & d (4) a, b & c

DS0177

7. The process of digestion is accomplished by:-
 (1) Mechanical process
 (2) Chemical process
 (3) Electrical process
 (4) Both 1 & 2

DS0178

8. Which of the following helps in lubricating and adhering the masticated food particles into a bolus?
 (1) Salivary amylase
 (2) Mucous
 (3) Secretion of lachrymal gland
 (4) Gastric juice

DS0179

9. Which of the following electrolytes is/are present in saliva of human?
 (1) Na⁺ (2) K⁺
 (3) Cl⁻ (4) above all

DS0180

10. Select the correct statements.

- (1) Trypsinogen $\xrightarrow{\text{Chymotrypsin}}$ Trypsin
 (2) Procarboxypeptidase $\xrightarrow{\text{Pepsin}}$ carboxypeptidase
 (3) Proamylase $\xrightarrow{\text{Ptylin}}$ Amylase
 (4) Pepsinogen $\xrightarrow{\text{HCl}}$ Pepsin

DS0181

11. Select the odd with respect to enzymes present in adult human.

- (1) Rennin (2) Renin
 (3) Trypsin (4) Pepsin

DS0182

12. Which of the following is not produced by the brush border cells of the intestinal mucosa.

- (1) Dipeptidases (2) Nucleosidases
 (3) Lipases (4) Steapsin

DS0183

13. All of the following is correct with reference to large intestine except.

- (1) No significant digestive activity.
 (2) Absorption of some water
 (3) Absorption of certain minerals.
 (4) Absorption of remaining glucose and amino acid.

DS0184

14. In which of the following disease liver is affected, skin and eyes turn yellow due to the deposition of bile pigments.

- (1) Vomiting (2) Jaundice
 (3) Diarrhoea (4) Dysentery

DS0185

EXERCISE-III(B) (ANALYTICAL QUESTIONS)

15. Match the following :

Column-I	Column-II
(A) Salivary gland	(i) Trypsinogen
(B) Stomach	(ii) Bile pigments
(C) Pancreas	(iii) Saliva
(D) Intestine	(iv) Erepsin
(E) Gall bladder	(v) Gastric juice

- (1) A-v, B-iii, C-i, D-ii, E-iv
 (2) A-iii, B-v, C-i, D-iv, E-ii
 (3) A-iv, B-iii, C-ii, D-i, E-v
 (4) A-ii, B-v, C-i, D-ii, E-iv

DS0186

16. Find out the correct match from the following table :-

	Column-I	Column-II	Column-III
A	Goblet cells	Mucus	Prevent mucosa layer from damage of HCl
B	Lysozyme	Saliva	Antibacterial agent
C	Saliva	Submaxillary gland	Secrete salivary amylase
D	Chief cells	HCl	Stimulate gastric lipase

- (1) Only 'A'
 (2) A and B
 (3) Only C
 (4) C and D

DS0187

17. Which of the following statements is/are incorrect regarding digestion and absorption of food in human beings :-

- (a) About 90% of starch is hydrolysed by salivary amylase in our oral cavity
 (b) Entero-endocrine cells in our stomach secrete the proenzyme trypsinogen
 (c) Vitamin-D is produced in human body in skin
 (d) Bile salts act as activator of pancreatic lipase

- (1) Two, a and b
 (2) Two, a and c
 (3) Two, a and d
 (4) Three, a, b and d

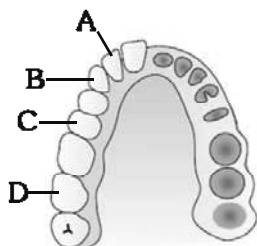
DS0188

18. Largest internal organ of the body is :-

- (1) Skin
 (2) Liver
 (3) Pancreas
 (4) Small intestine

DS0189

19. Identify A, B, C and D and choose correct option regarding their number in upper jaw:-



	A	B	C	D
(1)	Incisor-2	Canine-2	Premolar-2	Molar-3
(2)	Incisor-4	Canine-4	Premolar-8	Molar-12
(3)	Incisor-4	Canine-2	Premolar-4	Molar-6
(4)	Incisor-2	Canine-1	Premolar-2	Molar-3

DS0190

20. Identify the correct match from the column I, II and III.

Column-I	Column-II	Column-III
A Salivary gland	a Lacteal	i Emulsification of fat
B Villi	b Goblet cells	ii One pair
C Intestinal epithelium	c Bile juice	iii Absorption of fat
D Liver	d Sub maxillary gland	iv Mucous

- (1) A-d-i, B-a-iii, C-b-iv, D-c-ii
 (2) A-d-ii, B-a-iii, C-b-iv, D-c-i
 (3) A-a-ii, B-d-iv, C-b-iii, D-c-i
 (4) A-b-i, B-a-ii, C-c-iii, D-d-iv

DS0191

21. Read the following statements (A-D)
 (A) The stomach stores the food for 4-5 hours
 (B) The food mixes thoroughly with the acidic intestinal juice
 (C) Trypsinogen is activated by an enzyme-enterogastrone, secreted by the intestinal mucosa
 (D) Renin is enzyme found in gastric juice of infants which helps in digestion of milk protein

How many of the above statements are wrong ?

- (1) Four (2) One (3) Two (4) Three

DS0192

22. Conversion of large fat globules into smaller globule is :-

- (1) Emulsification (2) Digestion
 (3) Assimilation (4) Specification

DS0193

23. Micelle formation occurs in :-

- (1) Enterocyte (2) Duodenum
 (3) Lacteals (4) Pancreas

DS0194

24. Chymotrypsinogen is produced by

- (1) Liver (2) Pancreas
 (3) Stomach (4) Duodenum

DS0195

25. Contraction of gall bladder is carried by :

- (1) Citric acid + acetyl Co-A
 (2) Gastrin
 (3) Cholecystokinin
 (4) None of these

DS0196

26. The longitudinal mucosal folds of inner wall of stomach are called :

- (1) Papilla of Vater (2) Rugae
 (3) Villi (4) Fissure

DS0199

27. Gastric rugae are found in

- (1) Kidney (2) Liver
 (3) Nephron (4) Stomach

DS0200

28. Trypsinogen is :

- (1) Hormone secreted by mucosa
 (2) Enzyme secreted by mucosa
 (3) Inactive enzyme secreted by pancreas
 (4) Secreted by endocrine gland related to digestion

DS0201

29. Part of bile juice useful in digestion is :

- (1) Bile salt (2) Bile pigment
 (3) Bile matrix (4) All of them

DS0202

30. From which of the following pepsin is secreted :

- (1) Lungs (2) Stomach
 (3) Salivary gland (4) Sebaceous gland

DS0203

- 31.** Secretin hormone stimulates :
 (1) Gastric glands
 (2) Pancreas
 (3) Gall bladder
 (4) Crypts of Lieberkuhn
DS0204
- 32.** Prorennin is secreted by :
 (1) Zymogen cells (2) Sertoli cells
 (3) Islets of Langerhans (4) Hepatocytes
DS0205
- 33.** Find out the correctly matched pair :
 (1) Pepsinogen → Zymogenic cells
 (2) HCl → Goblet cells
 (3) Mucus → Oxyntic cells
 (4) Pancreatic juice → Salivary glands
DS0206
- 34.** Among mammals, a significant role in the digestion of milk is played by :
 (1) Rennin
 (2) Invertase
 (3) Amylase
 (4) Intestinal bacteria
DS0207
- 35.** pH of gastric juice is :
 (1) 2 (2) 4 (3) 6 (4) 8
DS0208
- 36.** Which of the following hormone helps in secretion of HCl from stomach ?
 (1) Renin (2) Gastrin
 (3) Secretin (4) CCK
DS0209
- 37.** Which of the following vitamins are fat soluble?
 (1) A, B, C, K (2) A, B, D, E
 (3) A, D, E, K (4) A, D, C, K
DS0210
- 38.** The organ in human body where Brunner's glands are present ?
 (1) Large intestine
 (2) Small intestine
 (3) Liver
 (4) Kidney
DS0211
- 39.** 'Crypts of Lieberkuhn' are found in :
 (1) Gall bladder
 (2) Liver
 (3) Pancreas
 (4) Intestinal wall
DS0212
- 40.** Glisson's capsule is associated with :
 (1) Liver (2) Pancreas
 (3) Lungs (4) Kidney
DS0213
- 41.** The main digestive function of enterokinase is :
 (1) Conversion of pepsinogen into pepsin
 (2) Conversion of trypsinogen into trypsin
 (3) Conversion of trypsin into trypsinogen
 (4) Stimulation of the gastric glands to secrete gastric juice
DS0214
- 42.** Castle intrinsic factor helps in absorption of
 (1) Vitamin - B₁₂ (2) Vitamin - B₆
 (3) Vitamin - A (4) Vitamin - C
DS0216
- 43.** Pancreatic juice contain bicarbonate which is secreted by :
 (1) Paneth cells
 (2) Goblet cell
 (3) Kupffer's cell
 (4) Aciner cell
DS0217
- 44.** Identify the false statement :
 (1) Oesophagus does not secrete any enzyme
 (2) Gall bladder concentrate bile juice
 (3) Human teeth are thecodont
 (4) There are two pairs of salivary glands in humans
DS0218
- 45.** Pepsinogen is activated by
 (1) Castle intrinsic factor
 (2) HCl
 (3) Bile juice
 (4) Enterokinase
DS0219

46. Find out the correct match :

Column I

- A. Hepatic lobule
B. Brunner's glands
C. Crypts of Lieberkuhn
D. Sphincter of Oddi
E. Cystic duct

Column II

- i. Submucosal glands
ii. Base of villi
iii. Glisson's capsule
iv. Gall bladder
v. Hepatopancreatic duct
vi. Serous glands

- | | A | B | C | D | E |
|-----|-----|----|-----|----|----|
| (1) | iii | vi | ii | v | iv |
| (2) | v | ii | iii | vi | i |
| (3) | iii | i | ii | v | iv |
| (4) | iv | vi | v | ii | i |

DS0220

47. Which an organ is affected in jaundice ?

- (1) Stomach (2) Pancreas
(3) Liver (4) Parotid glands

DS0221

48. Secretin and cholecystokinin are digestive hormones. They are secreted by :

- (1) Oesophagus (2) Ileum
(3) Duodenum (4) Pyloric stomach

DS0222

49. Identify the false statement ?

- (1) Bile is secreted by liver
(2) Stomach is divided into two parts
(3) Parietal cell lie in wall of stomach
(4) Liver is the largest gland of human body

DS0223

50. Which part of body secretes the hormone secretin?

- (1) Stomach (2) Oesophagus
(3) Ileum (4) Duodenum

DS0224

51. Which one is correct about the "rennin" ?

- (1) It helps in digestion of milk-sugar.
(2) It is found in gastric juice of adult human.
(3) It is proteolytic enzyme found in saliva.
(4) It is found in gastric juice of infants.

DS0225

52. Kwashiorkar disease is due to deficiency of:

- (1) Protein (2) Fat
(3) Sugar (4) Hormone

DS0226

53. Carbohydrate digestion occurs first in which structure?

- (1) Mouth (2) Intestine
(3) Stomach (4) None of these

DS0227

54. Enzyme pepsin acts in :

- (1) Acidic medium in the pancreas
(2) Acidic medium in the stomach
(3) Intestine
(4) Mouth

DS0228

55. Bile secretion is proportional to the concentration of :

- (1) Protein (2) Fat
(3) Carbohydrate (4) None of these

DS0229

56. Protein deficiency leads to :

- (1) Kwashiorkar (2) Marasmus
(3) Cretinism (4) Both (1) and (2)

DS0231

57. Defect of which cells leads to pernicious anaemia?

- (1) Chief-cells (2) Oxyntic cells
(3) Mast cells (4) Peptic cells

DS0232

58. In mammals the teeth are

- (a) of different types
(b) embedded in the cuplike socket in the jaw bones
(c) two sets present throughout life

The condition are referred as :

- (1) Heterodont, thecodont, diphyodont
(2) Thecodont, heterodont, diphyodont
(3) Diphyodont, thecodont, heterodont
(4) Heterodont, diphyodont, thecodont

DS0233

59. Which of the following process will be affected by the absence of enterokinase?

- (1) Lipid → Fatty acid + glycerol
(2) Dipeptides → Amino acid
(3) Proteoses → Dipeptide
(4) Amylose → Maltose

DS0234

60. Gastric juice contains :-
 (1) HCl, Pepsinogen, Lipase
 (2) Amylase, Dipeptidase, Lipase
 (3) Trypsinogen, Pepsin, Rennin
 (4) Chymotrypsinogen, Nucleases, Lipase

DS0268

EXERCISE-III

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	2	2	1	3	3	1	4	2	4	4	1	4	4	2	2
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	2	1	2	3	2	4	1	2	2	3	2	4	3	1	2
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	2	1	1	1	1	2	3	2	4	1	2	1	4	4	2
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	3	3	3	2	4	4	1	1	2	2	4	2	1	3	1