GPLUS EDUCATION

Date :
Time : **BIOLOGY**
Marks :

DIGESTION AND ABSORPTION

Single Correct Answer Type

1. The richest sources of vitamin-B_{12} are
   a) Goat's liver and *spirulina* b) Chocolate and green gram
   c) Rice and hen's egg d) Carrot and chicken's breast
2. The contraction of gall bladder is due to
   a) Gastrin b) Cholecystokinin c) Secretin d) Kinase
3. In infant, the process of defecation occurs by
   a) Reflex action without voluntary control
   b) Reflex action with voluntary control
   c) Voluntary relaxation of external an sphincter
   d) Involuntary relaxation of internal and sphincter
4. Deficiency of tocopherol in the human body causes which condition?
   a) Beri-beri b) Pellagra c) Infertikity d) Scurvy
5. Brunner's glands are located in
   a) Oesophagus b) Intestine c) Stomach d) Duodenum
6. Which is the correct chronological order for food processing in human beings?
   a) Ingestion of food → Digestion → Absorption → Assimilation → Egestion (Undigested)
   b) Ingestion → Assimilation → Digestion → Absorption → Egestion
   c) Ingestion → Digestion → Absorption → Egestion → Assimilation
   d) Digestion → Ingestion → Assimilation → Absorption → Egestion
7. Riboflavin is
   a) Vitamin-B_{12} b) Vitamin-B_2 c) Vitamin-C d) Vitamin-D
8. The stored food in animals is called
   a) Cellulose b) Starch c) Glucose d) Glycogen
9. Consider the following statements.
   I. The anti-pellagra vitamin is nicotinamide present in milk, yeast, meat and leafy vegetables.
   II. Crypts of Leiberkuhn are present in the liver.
   III. Steapsin is the pancreatic amylase.
   a) I and II correct b) II and III correct c) I and III incorrect d) II and III incorrect
10. Which of the following vitamins is water soluble as well as an antioxidant?
    a) Vitamin-B_1 b) Vitamin-A c) Vitamin-D d) Vitamin-C
11. Hydrochloic acid (HCl) is secreted by which of the following cells of stomach?
    a) Chief cells b) Parietal cells (oxyntic cells)
    c) Peptic cells d) Goblet cells
12. What are the narrow extensions of the pulp cavity?
    a) Pulp b) Dentine c) Root canals d) Periodontal ligament
13. Read thoroughly the following statements concerning with the assimilation of food. Identify true and false statements and choose the correct option from the given codes
    I. Conversion of amino acid into glucose and then into fat is irreversible reaction
    II. During the conversion of amino acids into glucose, amino group of amino acids is removed
    III. Excess of amino acids are converted into glucose and fats and thus are stored
    IV. Excess of simple sugars are stored in the liver and muscle cells. The process is known as glycogenolysis

V. Process of gluconeogenesis occurs in the kidney and striped muscles

a) I, II, IV and V true while III is false
b) I, II, III and V are true while IV is false
c) I, II, III and IV are false while V is true
d) I, II and III are false while IV and V are true

14. Why the eyes of the patients turns yellow during jaundice?
a) Due to the deposition of bile pigments
b) Due to the ejection of stomach content through mouth
c) Due to the stomach malfunctioning
d) Due to the excessive vomiting

15. Which one of the following is a fat-soluble vitamin and its related deficiency disease?
a) Ascorbic acid - Scurvy
b) Retional - Xerophthalmia
c) Cobalamin - Beri-beri
d) Calciferol - Pellagra

16. Secretin and cholecystokinin are secreted by
a) Brunner's gland found in duodenum
b) Paneth cells present in duodenum
c) Goblet cells present through out the epithelium of the stomach
d) Oxyntic cells present on the side walls of the gastric glands

17. Deficiency of Vitamin-B_{12} causes
a) Cheilosis
b) Thalassemia
c) Beri-beri
d) Pernicious anaemia

18. In human beings, digestion of carbohydrates starts from the mouth. How much percentage of it is digested in the mouth?
a) 10-20%
b) 25-30%
c) 60%-75%
d) About 85%

19. Which one is a fat soluble vitamin?
a) Vitamin-H
b) Vitamin-C
c) Vitamin-B
d) Vitamin-D

20. Bacteria *E, coli* are found in which part of the alimentary canal?
a) Caecum
b) Rectum
c) Colon
d) All of these

21. During starvation, what will be sequence of ending of food stuffs?
a) Carbohydrate-fat-protein
b) Carbohydrate-protein-fat
c) Fat-protein-carbohydrate
d) Fat-carbohydrate-protein

22. The islets of Langerhans are found in
a) Pancreas
b) Stomach
c) Liver
d) Alimentary canal

23. Which is the hardest material of the human body?
a) Dentine
b) Enamel
c) Teeth
d) Bone

24. Characteristic of mammalian liver is
a) Kupffer's cells and leucocytes
b) Leucocytes and canaliculae
c) Glisson's capsules and Kupffer's cells
d) Glisson's capsule and leucocytes

25. Least peristalsis occurs in
a) Rectum
b) Stomach
c) Oesophagus
d) Duodenum

26. Digestive enzymes are
a) Hydrolases
b) Oxidoreductases
c) Transferases
d) Lyases

27. Scurvy is caused due to deficiency of vitamin
a) B
b) A
c) E
d) C

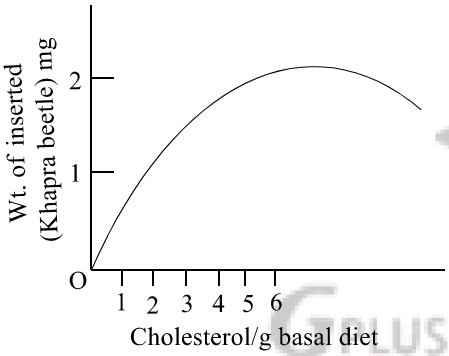
28. Duodenum has characteristic Brunner's gland, which secrete two hormones called
a) Kinase, oestrogen
b) Secretin, cholecystokinin
c) Prolactin, parathormone
d) Oestradiol, progesterone

29. The lacteals are found in
a) Salivary glands
b) Villi
c) Spleen
d) Mammary glands

30. The pH value at which pepsin becomes inactive is
a) Below pH 2
b) Below pH 5
c) Above pH 3
d) Above pH 5

31. Intestional lymphangiectasia is characterised by
a) Dilated intestinal lacteals
b) Contracted intestinal lacteals
c) Descreased number of peneth cells
d) Increased number of peneth cells

32. Deficiency of cyanocobalamine causes
    a) Pernicious anaemia b) Pellagra c) Ketomalacia d) Ariboflavinosis
33. Which combination is responsible to increase the cholesterol level of the blood?
    a) Saturated fats and proteins b) Unsaturated fats and proteins
    c) Both saturated and unsaturated fats d) Saturates fats and polyunsaturated fatty acids
34. FAD is a coenzyme derived from
    a) Riboflavin b) Vitamin-B_{12} c) Thiamine d) Niacin
35. What name would you suggest for a thoroughly mixed food the with gastric juices by the churning movements of muscular stomach wall?
    a) Bolus b) Chyme
    c) Either bolus or chyme d) None of these
36. Which of the following is the constituent of pancreatic juices?
    a) Sodium bicarbonate and three proenzymes
    b) Potassium bicarbonate and three proenzymes
    c) Sodium bicarbonate and five proenzymes
    d) Potassium bicarbonate and five proenzymes
37. In an experiment, freshly hatched larvae of an insect (Khapra beetle) were reared on a basal diet (complete diet without cholesterol) with increasing amounts of cholesterol. Results obtained are shown in given the graph.



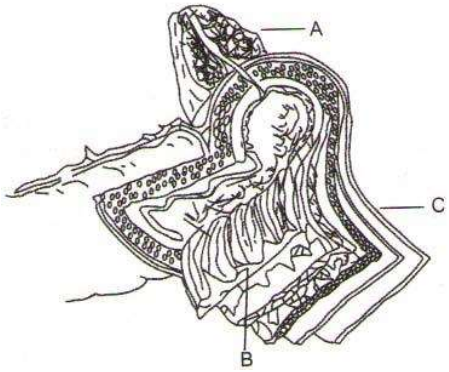
    The graph indicates
    a) Cholesterol is an essential dietary requirement of Khapra beetle
    b) Growth of Khapra beetle is directly proportional to cholesterol concentration
    c) Cholesterol concentration of 2 µg/g diet is the optimum level
    d) Growth of Khapra beetle is inhibited when cholesterol concentration exceeds 2µg/g diet
38. Which one serves as a passage for both food and air?
    a) Larynx b) Pharynx c) Gullet d) Glottis
39. Which of the following animal exhibits diphyodont dentition?
    a) Snakes b) Crocodiles c) Horse d) Elephant
40. Choose an incorrect statement regarding the functions of large intestine
    a) Large intestine absorbs the products of bacterial digestion
    b) Absorption of electrolytes, water and some amino acids occur mainly in the stomach
    c) Mucous lubricates faecal matter
    d) Feces are temporarily stored in the rectum
41. Generally, new born babies shows a symptoms of a mild form of jaundice which is known as
    a) Prehepatic jaundice b) Hepatic jaundice
    c) Neonatal jaundice d) Physiological jaundice
42. Which one of the following combination of vitamins are synthesised by bacteria?
    a) Vitamin-B_{12} and K b) Vitamin-B_1 and B c) Vitamin-B and B_{12} d) Vitamin-K and D
43. The best source of vitamin-B_1 is
    a) Whole Wheat bread b) Cod liver oil

c) Egg d) Curd

44. Which one of the following statements is/are correct?
I. Frenulum is the fold by which tongue is attached to the floor of mouth or oral cavity
II. Lower surface of the tongue has little projection which bears taste buds
III. Pharynx is the common passage for food and air
IV. Sphincter of oddi guards and regulates the opening of stomach into duodenum
V. Colon has 3 parts an ascending, a transverse and a descending part and the later opens into the rectum
a) I, II and III are correct b) IV and V are correct c) I, II, III, IV and V d) I, III and V are correct

45. Wisdom teeth in human is
a) 3rd molar and 4 in number b) 3rd molar and 2 in number
c) 2nd molar and 4 in number d) 2nd molar and 2 in number

46. Which one of the correct option for labels A, B and C in the given diagram?



a) A-Liver, B-Mucosa, C-Peritoneum b) A-Liver, B-Circular muscle layer, C-Serosa
c) A-Pancreas, B-Mucosa, C- Peritoneum d) A-Pancreas B- Submucosa, C- Serosa

47. What is the medium of human saliva?
a) Acidic b) Basic c) Neutral d) Highly acidic

48. Small projections found on the upper surface of tongue are called
a) Frenulus b) Taste buds c) Sulcus terminals d) Papillae

49. The Digestive enzyme that is not found in human pancreatic juice is
a) Nucleotidase b) Nuclease c) Trypsin d) Lipase

50. Which one of the following enzymetic reaction is incorrect?
a) Nucleic acids $\xrightarrow{\text{Nucleotidase}}$ Nitrogen bases + Pentose sugar
b) Fat (Emulsified) $\xrightarrow[\text{Pancreatic}]{\text{Lipase}}$ Fatty acids + Diglycerids
c) Starch $\xrightarrow[\text{Pancreatic}]{\alpha \text{ amylase}}$ Maltose + Isomaltose + α-dextrias
d) Proteins $\xrightarrow{\text{Pepsin}}$ Peptones + Proteose

51. Bile salts act as activator of which enzyme?
a) Pepsinogen b) Trypsinogen c) Lipase d) Pancreatic amylase

52. Sphincter of Oddi guards
a) Hepato-pancreatic duct b) Common bile duct
c) Pancreatic duct d) Cystic duct

53. Stomach located on the upper left portion of abdominal cavity has three parts, a …A… portion into which the oesophagus open, a …B… region and a …C… portion, which opens into small intestine.
Identify A, B and C to complete the given NCERT statement and choose the correct option accordingly
a) A-cardiac, B-fundic, C-pyloric b) A-fundic, B-cardiac, C-pyloric
c) A-pyloric, B-cardiac, C-fundic d) A-pyloric, B-fundic, C-cardiac

54. The opening of the common bile duct is guarded by sphincter?
a) Pyloric b) Ileo-caecal c) Oddi d) Muscularis mucosa

55. Which part of small intestine opens into large intestine?
a) Colon b) Jejunum c) Ileum d) Duodenum

56. Which one of the following pairs is not correctly matched?
    a) Vitamin-B_{12}- Pernicious anaemia
    b) Vitamin-B_6- Loss of appetite
    c) Vitamin-B_1- Beri-beri
    d) Vitamin-B_2- Pellagra
57. In human teeth, which helps in cutting?
    a) Canine b) Incisor c) Molar d) Premolar
58. Medium, in which pepsin is active?
    a) Neutral b) Alkaline c) Acidic d) Isotonic
59. Glisson's capsules are found, in which organ of mammals?
    a) Stomach b) Kidney c) Testis d) Liver
60. What is the process of food passage from buccal cavity to the site of water and mineral absorption
    a) Mouth → Buccal cavity → Pharynx → Oesophagus → Duodenum → Stomach → lleum → Large intestine
    b) Mouth → Buccal cavity → Pharynx → Oesophagus → Stomach → Duodenum → lleum → Caecum → Rectun
    c) Mouth → Buccal cavity → Pharynx → Larynx → Stomach → Small intestine → Large intestine
    d) Mouth to buccal cavity → Pharynx → Food pipe → Stomach → Large intestine → Small intestine
61. Examination of blood of a person suspected of having anaemia, shows large, immature, nucleated erythrocytes without haemoglobin. Supplementing his diet with which of the following is likely to alleviate his symptoms?
    a) Thiamine
    b) Folic acid and cobalamin
    c) Riboflavin
    d) Iron compounds
62. What do you mean by dental formula?
    a) An arrangement of teeth in mouth in the order of I, C, PM, M
    b) An arrangement of teeth in each half of the upper and lower jaw in the order of I, C, PM, M
    c) An arrangement of teeth in upper jaw in the order to I, C, PM, M
    d) An arrangement of teeth in the lower jaw in the order to I, C, PM, M
63. Improper balance diet may cause
    a) Self-poisoning
    b) Scarcity of moisture in eyes
    c) Feeble muscles
    d) All of the above
64. Which of the following metals is present in vitamin-B_{12}?
    a) Cobalt b) Copper c) Zinc d) Magnesium
65. If pancreas is removed, the compound, which remains undigested is
    a) Carbohydrates b) Fats c) Proteins d) All of these
66. Cattle fed with spoilt hay to sweet clover, which contains dicumarol
    a) Are healthier due to a good diet
    b) Catch infections easily
    c) May suffer vitamin-K deficiency and prolonged bleeding
    d) May suffer from beri-beri due to deficiency of vitamin–B
67. Crypts of Leiberkuhn are involved in
    a) Secretion of succus entericus
    b) Secretion of rennin
    c) Secretion of ptyalin
    d) Digestion of food
68. Ptyalin is inactivated by a component of gastric juice known as
    a) Pepsin b) Mucus c) Rennin d) HCl
69. Which combination is not correctly matched?
    a) Vitamin-K – Faulty in blood clotting
    b) Vitamin-C – Pyorrhoea, crack on mouth corner
    c) Vitamin-B_2 – Beri-beri
    d) Vitamin-A – Night blindness
70. How many deciduous teeth are present in human?
    a) 22 b) 24 c) 20 d) 18
71. Crypts of Leiberkuhn are present in
    a) Small intestine b) Liver c) Stomach d) Colon
72. Study thoroughly the following statement and identify which of the following is/are correct and incorrect?
    I. Bile salt present in bile is responsible to emulsify the fats in small intestine

II. Bicarbonates of sodium, potassium, glycocholate and faurocholate of sodium are bile salts
III. The pH of hepatic bile is 8.6, while pH of gall bladder is 7.6 or 7.5
IV. The flow of bile from liver takes place through hepatic duct, common bile duct, -hepatopancreatic ampulla and finally to the first part of small intestine
V. Gall bladder in rat and horse does not store bile
Choose the correct option
a) I, III and IV are incorrect, while II and V are correct
b) Al statement are correct
c) Statement II and V are incorrect while, I, III and IV are correct
d) All statement are incorrect

73. Read the following statements thoroughly and identify wheather they are true and false. Choose the right option accordingly
I. Bile is produced and stored in the liver and gall bladder, respectively
II. Common bile duct is the fusion of all the right and left hepatic ducts
III. Hepato-pancreatic duct opens into the proximal part of the small intestine
IV. Pancreas consists of two parts, exocrine and endocrine, which secretes insulin and glucagon hormone and pancreatic juices containing enzymes, respectively
V. Pepsinogen, a secretion of chief cells is activated by hydrochloric acid
VI. Peptides are converted into dipeptides with the action of carboxypeptidase
a) All statements are true
b) All statement are false
c) Statement I, III, IV and V are true while II and VI are false
d) Statement I, III, V and VI are true while III and IV are false

74. The digestion of starch by amylase is completed in the
a) Mouth b) Oesophagus c) Stomach d) Duodenum

75. Which of the following fatty acids is not synthesized in the human body?
a) Glycerol b) Cholesterol c) Linoleic acid d) Both (a) and (b)

76. In horses, rabbits, hares, the cellulose gets digested in the
a) Caecum b) Stomach c) Appendix d) Rumen

77. Pepsinogen (inactive form) is converted into active form of enzyme pepsin with the help of which of the following compound?
a) Proenzyme b) Hydrochloric acid c) Electrolyte d) Bicarbonates

78. Poison glands of snake are modified
a) Sebaceous glands b) Ceruminous glands c) Salivary glands d) Endocrine glands

79. In the Absence of enterokinase, the digestion of ..... would be affected in our intestine.
a) Maltose b) Amino acid c) Albumin d) Starch

80. Vitamin-B_1, responsible for normal working of human being, can be best obtained from
a) Green vegetables and fruits b) Meat and lentils
c) Whole wheat flour and its derivatives d) All of the above

81. Small finger-like projection, which produce numerous microscopic projections are supplied with a network of
a) Blood capillaries and lacteal b) Blood capillaries only
c) Lacteal only d) A large lymphoid vessel and valves

82. Vitamin –K deficiency causes
a) Scurvy b) Xerophthalmia c) Bleeding d) Osteomalacia

83. The largest variety of digestive enzymes is found in
a) Carnivores b) Herbivores c) Omnivores d) Parasites

84. Pylorus is present between
a) Small and large intestine b) Pancreas and small intestine
c) Oesophagus and stomach d) Stomach and duodenum

85. Identify the type of gastrointestinal hormone based on the functions given below
I. Stimulates the crypts of Lieberkuhn
II. Inhibits the secretion of glucagon by alpha cells
III. Stimulates Brunner's glands to release mucus
Chooses the correct option accordingly
a) I-Gastrin II-Duocrinin III-Enterokinin
b) I-Duocrinin II-Cholecystokinin III-Enterokinin
c) II-Duocrinin II-Cholecystokinin III-Villikinin
d) I-Enterokinin II-Somatostatin III-Duocrinin

86. Go through the following statements regarding *Oryctolagus* and select the correct option
I. Denition is heterodont
II. Canines are absent
III. Herbivorous and diastema is present
IV. Incisors are chisel like and poorly developed
V. The dental formula is 2033/1023
a) I, II and III are true, while IV and V are false
b) III and II and V are true while I and IV are false
c) I, III and V are true while II and IV are false
d) All the above are correct

87. Acetylcholinesterase enzyme splits acetylcholine into
a) Acetone and choline
b) Acetic acid and choline
c) Aspartic acid and acetylcholine
d) Amino acid and choline

88. Emulsification of fat will not occur in absence of
a) Lipase
b) Bile pigments
c) Bile salts
d) Pancreatic juice

89. Which of the following animals eats its prey?
a) Leech
b) Starfish
c) *Sepia*
d) Both (b) and (c)

90. Aggregates of lymphoid tissue present in the distal portion of the small intestine are known as
a) Villi
b) Peyer's patches
c) Rugae
d) Choroid plexux

91. In the wall of alimentary canal, what is the actual sequence from outer to inner?
a) Serosa, longitudinal muscle, mucosa, submucosa
b) Mucosa, serosa, longitudinal muscle
c) Serosa, longitudinal muscle, circular muscle, submucosa, mucosa
d) Serosa, longitudinal muscle, submucosa, mucosa

92. Diastema refers to
a) Gap between the teeth
b) Gap between tongue and teeth
c) Ciliary cells on alimentary wall
d) Cell lining along pharynx

93. Which of the following is regarded as the source of instant energy?
a) Fats
b) Carbohydrates and fats
c) Carbohydrates only
d) Minerals and vitamins

94. Enterokinase converts
a) Trypsinogen to trypsin
b) Pepsinogen to pepsin
c) Chymotrypsin to pepsinogen
d) Pepsin to chymotrypsin

95. Which of the following are required in minimum amount by human?
a) Iron, iodine, carbon, manganese, copper, oxygen
b) Iron, iodine, manganese, copper, zinc, fluorine
c) Iron, iodine, manganese, zinc, hydrogen
d) Nitrogen, oxygen, zinc, fluorine

96. Which one of the following is vestigial organ of human?
a) Hair
b) Intestine
c) Wisdom teeth
d) Muscle of glottis

97. Lysozyme, one of the constituent of the saliva of human being acts like
a) Antibacterial agent
b) Zymogen
c) Amylase
d) Lipase

98. Which teeth of human are shovel-shaped and used for nibbling, cutting and tearing?
a) Canines
b) Premolars
c) Molars
d) Incisors

99. Success entericus is

a) Intestinal juice b) Gastric juice c) Bile juice d) Salivary juice

100. During prolonged hunger strike, what is the correct chronological sequence of ending the food stuff?
a) Protein-fat-carbohydrate b) Carbohydrate-protein-fat
c) Fat-proteins-carbohydrate d) Carbohydrate-fat-proteins

101. Which one of the following pair of simple sugar absorption occurs most rapidly in the jejunum and stomach?
a) Glucose and fructose b) Glucose and galactose
c) Fructose and galactose d) All of the above

102. Succus entericus is secreted by
a) Goblets cells b) Crypt of Lieberkuhn c) Islets of lengerhans d) Paneth cells

103. Consider the following statement regarding digestion and absorption in mammals. Identify wheather they are true or false and select the correct option accordingly
I. Both Kuffer's cells and glisson's capsule are the characteristic of mammalian liver
II. IN dentition, thecodont means that teeth are embedded in the socket of jaw bones
III. There are three pair of salivary glands in human beings, out of them parotid, situated beneath the tongue are the smallest salivary gland
IV. Zymogen (inactive form of enzymes) are not the secretions of peptic cells
a) All statement are true b) All statement are false
c) I and II are true while III and IV are false d) III and IV are true while I and II are false

104. Digestion and distribution of nutrients both functions are performed by
a) Blastocoels
b) Coelom
c) Spongocoel
d)

105. Camel in its hump, stores
a) Water for emergency b) Fat for emergency
c) Both fat and water for emergency d) Fat and proteins as reserve food for emergency

106. What is the pH of human saliva?
a) 7.0 b) 7.5 c) 6.8 d) 6.0

107. Bile is composed of bile salts and bile pigments which are
a) Sodium glycocholate taurocholate and bilirubin, biliverdin, respectively
b) Bilirubin, biliverdin and sodium glycocholate taurocholate, respectively
c) Sodium glycocholate, taurocholate and bilirubin, respectively
d) Sodium glycocholate, taurocholate and biliverdin, respectively

108. Which one of the following four secretions is correctly matched with its source, target and nature of action?

a)

Secretion	Source	Target	Action
Gastrin	Stomach lining	Oxyntic cells	Production of HCl
Enterokinase	Duodenum	Gall bladder	Release of bile juice

b)

Inhibin	Sertoli cells	Hypothalamus	Inhibition of secretion of gonadotrop-in releasing hormone
Atrial Natriuretic Factor	Sinu Atrial Node M-cells of atria	Juxtaglomeru-lar apparatus	Inhibition of release of renin

109. Pellagra is caused due to deficiency of

a) Niacin b) Pantothenic acid c) Tocopherol d) Cyanocobalamin

110. Osteomalacia is due to deficiency of
a) Vitamin-A b) Vitamin-C c) Vitamin-E d) Vitamin-D

111. What is the dental formula of human being?
a) $\frac{2123}{2123}$ b) $\frac{2123}{2213}$ c) $\frac{2114}{2114}$ d) $\frac{2122}{2122}$

112. Lactose intolerance in adults is related to
a) Wheat indigestion b) Mushroom indigestion
c) Milk indigestion d) Barley indigestion

113. Secretion of pancreatic juice is stimulated by
a) Gastrin b) Secretin c) Enterogasterone d) Enterokinase

114. Which one is correct regarding the number of teeth and dental formula with reference to a child of age between 4 to 6 years?
a) $\frac{212}{212} \times 2 = 20$ b) $\frac{212}{213} \times 2 = 24$ c) $\frac{2103}{2103} \times 2 = 24$ d) $\frac{2103}{2003} \times 2 = 22$

115. Which of the following represent bile salts?
a) Haemoglobin and biliverdin b) Bilirubin and biliverdin
c) Bilirubin and haemoglobin d) Sodium glycocholate and taurocholate

116. Which is not a disorder of the digestive system?
a) Jaundice b) Diarrhea c) Emphysema d) Constipation

117. What is the composition of bile?
a) Bile pigments and bile salts b) Bile pigments and cholesterol
c) Cholesterol and phospholipids d) All of the above

118. Which one of the following is antioxidant vitamin?
a) C, E and A b) B_1 and B_4 c) A, D and E d) B_3 and B_5

119. Maximum percentage of lipoprotein is in
a) Chylomicron b) HDL c) Arthritis d) None of these

120. Enzyme sucrose hydrolyses sucrose into
a) Glucose and galactose b) Glucose and fructose
c) Two molecule of glucose d) Two molecule of fructose

121. Which part of digestive system is affected in celiac disease?
a) Large intestine b) Small intestine c) Stomach d) Duodenum

122. Which of the following cells produce HCl?
a) β–cells b) α-cells c) Oxyntic cells d) Chief cells

123. What is the another name of gastro-oesophageal sphincter?
a) Pyloric sphincter b) Gastro-duodenal sphincter
c) Cardiac sphincter d) Sphincter of oddi

124. Deficiency of which essential amino acid leads to deregulation of blood sugar?
a) Isoleucine b) Valine c) Threonine d) Phenylalanine

125. The essential vitamin for blood coagulation is
a) Vitamin-B_6 b) Vitamin-A c) Vitamin-K d) Vitamin-E

126. What is the main site of amino acids absorption in human's small intestine?
a) Duodenum b) Jejunum c) Ileum d) Both (a) and (b)

127. Which of the following represents all proteolytic enzymes?
a) Erepsin, trypsin, pepsin b) Cholecystokinin, pepsin, gastrin
c) Lipase, ducrinin, trypsin d) Enterocrinin, gastrin, erepsin

128. Which of the following is a protein-energy malnutrition related disorder?
a) Kwashiorkor b) Marasmus c) Both (a) and (b) d) Xerophthalmia

129. Identify, wheather the given nutrients are absorbed by the active transport, simple diffusion or facilitated transport

I. Glucose
II. Fructose
III. Vitamin-K
IV. Amino acids
Choose the correct option accordingly
a) I-Active transport
II-Active transport
III- Facilited
IV-Simple diffusion
b) I- Facilited transport
II-Simple diffusion
III-Active transport
IV-Active transport
c) I-Active transport
II- Facilited transport
III-Simple diffusion
II-Active transport
d) I-Simple transport
II-Simple transport
III-Facilited transport
IV-Active transport

130. Crypts of Leiberkuhn are example for
a) Simple tubular gland b) Coiled tubular gland
c) Compound alveolar gland d) Compound tubular gland
131. Carnassial teeth are modified for
a) Crushing b) Tearing c) Grinding d) Cutting
132. Hardest part in animal body is
a) Bone b) Hair c) Dentine d) Enamel
133. By which process, glucose and amino acids are absorbed in the small intestine?
a) Active transport b) Passive transport c) Osmosis d) Selective absorption
134. The true stomach in ruminants, Where most of digestion takes place is
a) Rumen b) Omasum c) Reticulum d) Abomasum
135. The layer of cells that secretes enamel of tooth is
a) Dentoblast b) Ameloblast c) Osteoblast d) Odontoblast
136. Which one of the following elements is essential for the life of animal and not for plants?
a) Calcium b) Iodine c) Phosphorus d) Potassium
137. The amount of bile released is proportional to the amount of
a) Fat in meal b) Protein in meal c) Carbohydrate in meal d) All of these
138. Pancreatic secretion and gall bladder contraction are stimulated by
a) Gastrin b) Enterocrinin c) Enterogasterone d) Cholecystokinin
139. What are the trace components of our food?
a) Fatty acids b) Minerals and vitamins
c) Monosaccharides d) Amino acids
140. The beri-beri is a paralytic disease caused by the deficiency of vitamin-B_1 (thiamine). It was discovered by
a) Funk b) G E Foxon c) Eijkman d) Stanley
141. Which of the following is not a source of Vitamin-A?
a) Carrot b) Mango c) Apple d) Yeast
142. 'Digestion' word means
a) Burning of food b) Oxidation of food c) Hydrolysis of food d) Breakdown of food
143. What is the major site for the conversion of proteins into free amino acids?

a) Spleen b) Liver c) Intestine d) Kidney

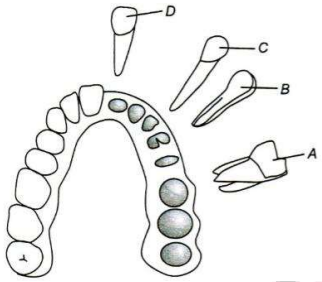
144. Digestion of protein is completed in
a) Stomach b) Duodenum c) Ileum d) Both (b) and (c)

145. What do you mean by the process of digestion?
a) Conversion of complex substances into simpler form
b) Absorption of monomers by the body
c) Conversion of monomers into polymers
d) Absorption of water and food

146. The pH of the digestive juices within the human small intestine is between 7.5 and 8.5. This environment is slightly
a) Basic b) Acidic c) Neutral d) None of these

147. Which one of the following statements is true regarding digestion and absorption of food in humans?
a) Oxyntic cells in our stomach secrete the proenzyme pepsinogen
b) Fructose and amino acids are absorbed through intestinal mucosa with the help of carrier ions like Na^+
c) Chylomicrons are small lipoprotein particles that are transported from intestine into blood capillaries
d) About 60% of starch is hydrolysed by salivary amylase in our mouth

148. The given schematic diagram diepicts heterodont teeth and its thecodont arrangement. Find the correct labelling for *A*-*D* from the options given below



a) A-Incisor, B-Canine, C-Premolar, D-Molar b) A-Molar, B-Premolar, C-Canine, D-Incisor
c) A-Incisors, B-Premolar, C-Canine, D-Molar d) A-Molar, B-Premolar, C-Incisor, D-Canine

149. Which of the following is not a function of liver?
a) Production of bile b) Production of insulin
c) Glycogen storage d) Detoxification

150. Choose the incorrect statement regarding human digestive system with reference to a normal person
a) Human saliva is slightly acidic
b) In human being, four pair of salivary gland secretes saliva
c) The quantity of saliva in adult man may be-1 to 1.5 L day
d) Enzyme amylase present in saliva is responsible for the break down of starch into simple sugar

151. What type of teeths are absent in rabbit?
a) Molars b) Premolars c) Canines d) Incisors

152. Which one is correctly matched?
a) Vitamin-E - Thiamine b) Vitamin-D - Riboflavin
c) Vitamin-B_1 - Tocopherol d) Vitamin $-B_{12}$- Cyanocobalamin

153. Nutritional disorder, keratomalacia is caused by the deficiency of vitamin
a) Calciferol b) Retinol c) Nicotinamide d) Biotin

154. How many human teeth appear twice during the life span of an individual?
a) 16 b) 32 c) 22 d) 20

155. What is the correct dental formula of rat?
a) $I\frac{2}{2}C\frac{1}{1}PM\frac{2}{2}M\frac{3}{3}$ b) $I\frac{2}{1}C\frac{1}{1}PM\frac{2}{2}M\frac{3}{3}$ c) $I\frac{1}{2}C\frac{2}{1}PM\frac{2}{2}M\frac{3}{3}$ d) $I\frac{1}{1}, C\frac{0}{0}, PM\frac{0}{0}, M\frac{3}{3}$

156. Secretin and cholecystokinin are digestive hormones. They are secreted in

a) Oesophagus b) Ileum c) Duodenum d) Pyloric

157. The cells, which destroy worn out white and red blood cells, bacteria and micro-organisms passing from the liver are
a) β-cells b) T- cells c) Kupffer's cells d) Oxytocin cells

158. Go through the following statements regarding starch digestion. Separate true and false statements and select the correct option accordingly
I. Digestion of starch starts from the mouth
II. Around 30% of the starch is digested in the stomach
III. Digestion of food requires the action of pancreatic juices
IV. Digestion of food is completed in the longest part of the alimentary canal
a) All are true
b) I, III and IV are true while II is false
c) II and III are false while III and I are true
d) II and, IV are false while III and I are true

159. Which of the following secretions gets mixed with the food (hydrolysed) in the small intestine?
a) Bile, pancreatic juices and intestinal juices
b) Pancreatic juices, intestinal juices and gastric juices
c) Gastric juices, intestinal juices and biles
d) Bile, gastric juices and salivary uices

160. The absorption of glycerol, fatty acids and monoglycerides takes place by the
a) Lymph vessels within the villi
b) Wall of the stomach
c) Colon
d) Capillaries within the villi

161. Reserve flow of food in the stomach of rabbit is prevented by
a) Pyloric sphincter b) Ileo-caecal valve c) Cardiac sphincter d) Uvula

162. Graveyard for RBCs is
a) Liver b) Spleen c) Kidney d) Lymph glands

163. Go through the following statement regarding the physiology of digestion and identify wheather they are true or false
Choose an appropriate option from the codes given below
I. Largest variety of hydrolases are present in omnivores, while the herbivores, generally lack digestive enzymes
II. Digestive enzymes are of four types namely, amylase, proteinases, lipases and nucleases
III. Proteinases are also known as proteases which are released in the active form because the proteins, either cellular or extracellular, all are hydrolysed by them in the absence of food
IV. Hydrolases and cholecystokinin are secreted by the exocrine part of pancreas
a) All statement are true
b) All statement are false
c) Statements III and IV are true while I and II are false
d) Statements I and II are true while III and IV are false

164. Pellagra is caused by deficiency of
a) Pyridoxine b) Niacin c) Folic acid d) Biotin

165. Drowsiness after a heavy meal occurs due to
a) Increased blood pressure in the brain
b) Decreased pulse rate
c) Reduced blood pressure in the brain
d) Increased pulse rate

166. The mucosal layer in the stomach form irregular folds known as
a) Villi
b) Lumen
c) Rugae
d) Crypts of Lieberkuhn

167. Where the liver is located in human body?
a) In abdominal cavity just above diaphragm
b) In thoracic cavity
c) Above the thoracic cavity
d) In abdominal cavity, just below the diaphragm

168. Enterogasterone is
a) Hormone secreted by gastric mucosa
b) Enzyme secreted by mucosa

c) Hormone secreted by duodenal mucosa d) Secreted by endocrine gland related to digestion

169. Bile salts help in
a) Emulsification b) Mastication c) Absorption d) Alkalination

170. Which vitamin is the most important one digestive health?
a) Vitamin-A b) Vitamin-D c) Vitamin-E d) Vitamin-B

171. Facilated transport, facilitates the absorption of
a) Fructose b) Amino acid c) Glucose d) Both (a) and (b)

172. Maximum absorption of water occurs in
a) Colon b) Rectum c) Large intestine d) Small intestine

173. Which one of the following disorders and characteristic is correctly matched?
a) Cystic fibrosis – Production of thick mucus that clogs airways
b) Sickle cell anaemia - Brain deterioration beginning at months of age
c) Achondroplasia - Extra fingers or toes
d) Huntington's disease - Skeletal, eye and cardiovascular defects

174. Which of the following has the highest pH?
a) Gastric juice
b) Bile
c) Pancreatic juice
d) Secretions of the intestinal glands

175. The following statements are based on the digestion and absorption of food. Select the correct and incorrect statements and choose an option accordingly from the codes given below
I. Active absorption of monosaccharides in the stomach and jejunum is carried out by facilitated transport
II. Most of the amino acids (above 95%) are absorbed in the duodenum and jejunum parts of the small intestine
III. Food is digested completely before absorption and is used by the body tissues
IV. Absorption of water from the small intestine is concerned with the absorption of salts and digested food in order to maintain an osmotic balance with the blood
a) I, II, IV and V are correct, while III is incorrect
b) I, II, III are correct, while IV and V are incorrect
c) III, IV and V are correct, while I, II are incorrect
d) IV and V are correctly, while I, II, III are incorrect

176. The gastric juice contains
a) Trypsin, pepsin, lipase b) Pepsin, lipase, rennin
c) Pepsin, amylase, trypsin d) Trypsin, pepsin, rennin

177. Compound saccular glands are
a) Intestinal glands b) Salivary glands c) Gastric glands d) Endocrine glands

178. Alcohol is present, in which of the following?
a) Vitamin-D b) Vitamin-B_2 c) Vitamin-B_5 d) Vitamin –C

179. Which of the following enzyme is not a component of human saliva?
a) **α**-amylase b) Lysozyme c) Lipase d) None of the above

180. Which enzyme is present in human saliva?
a) Ptylin b) Pepsin c) Enterokinase d) Maltase

181. Which of the following scales are similar to mammalian teeth?
a) Cycloid b) Placoid c) Ganoid d) Cninoid

182. Read the statement A and B.
A. In human, small intestine is the longest protein of the alimentary canal.
B. Absorption of digested food requires a very large surface area.

Identify the correct choice on the two statements.

a) Statement A is correct, B is wrong
b) Statement A and B are both correct
c) Both the statements are wrong
d) Statement B is correct, A is wrong

183. Among mammals, a significant role in the digestion of milk is played by
a) Rennin b) Invertase c) Amylase d) Intestinal bacteria

184. Fats are emulsified by the bile juice because it contains
a) Enzyme b) Esterase c) Bile salt d) Bile pigment

185. Note the following
I. Dentition is heterodont.
II. Canines are poorly developed.
III. Incisors are chisel-like poorly developed.
IV. Herbivorous and diastema is present.
V. The dental formula is I 2/1, C 0/0, Pm 3/2, M 3/3
Which of the above are true for *Oryctolagus*?
a) I, II and IV b) I, IV and V c) I, II, IV and V d) III, IV and V

186. Which of the following is not a cause of indigestion?
a) Over eating b) Anxiety c) Over sleeping d) Food poisioning

187. Which one of the following is the correct matching of the site of action on the given substrate enzyme action upon it and the end-product?
a) Duodenum – Triglycerides $\xrightarrow[\text{Monoglycerides}]{\text{Trypsin}}$
b) Small intestine – Starch $\xrightarrow[\text{Disaccharide(maltose)}]{\alpha\text{–Amylase}}$
c) Small intestine – Proteins $\xrightarrow[\text{Amino acids}]{\text{Pepsin}}$
d) Stomach – Fats $\xrightarrow{\text{Lipase}}$ Micelles

188. During intake of food, what prevents the entry of food into the glottis (opening of wind pipe)?
a) Glottis itself prevents into the entry of food glottis
b) Food entry is prevented by air present in wind pipe
c) Food entry into glottis is prevented by annular rings of pharynx
d) Food entry is prevented by epiglottis into the glottis

189. Which one of the following sugar is most rapidly absorbed in the human gut?
a) Glucose b) Fructose c) Galactose d) Sucrose

190. Which is a symbiont inside human intestine?
a) *Streptococcus pneumo* b) *Neisseria meningitis* c) *E. coli* d) *Treponema pallidum*

191. Which is the inactive form of enzyme, pepsin?
a) Pepsinogen b) Protease c) Trypsin d) Peptones

192. The deficiency of a vitamin, which causes keratomalacia is
a) Vitamin-K b) Vitamin-D c) Vitamin-A d) Vitamin-E

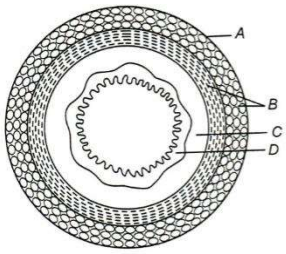
193. Animals consuming only plant materials are referred as
a) Herbivorous b) Carnivorous c) Omnivorous d) Insectivorous

194. Substrate for the enzyme amylase is
a) Nucleic acids b) Protein c) Starch d) Fat

195. Vitamin-D is synthesized in skin by the action of sunlight on
a) Cholesterol b) 7-hydroxy cholesterol
c) Cephalin cholesterol d) All of the above

196. Common bile duct is formed by the fusion of
a) Pancreatic duct and cystic duct b) Pancreatic duct and hepatic duct
c) Pancreatic duct, hepatic duct and cystic duct d) Hepatic duct and cystic duct

197. Given below the diagram of the transverse section of alimentary canal. Label it correctly and choose the correct option accordingly



a) A-Muscularis; B-Serosa; C-Submucosa; D-Mucosa
b) A-Muscularis; B-Serosa; C-Mucosa; D-Submucosa
c) A-Serosa; B-Muscularis; C-Mucosa; D-Submucosa
d) A-Serosa; B-Muscularis; C-Submucosa; D-Mucosa

198. Vitamin necessary for normal functioning of liver, clotting of blood and preventing haemorrhage is
a) Tocopherol b) Phylloquinone c) Cyanocobalamin d) Riboflavin

199. Absorption of fat occurs through the process of
a) Active transport b) Passive transport c) Osmosis d) Simple diffusion

200. Which is not used up in human body?
a) Calcium b) Phosphorus c) Zinc d) Barium

201. The inflammation of intestinal tract is due to the infection of which microorganism?
a) Bacteria b) Virus c) Fungus d) Both (a) and (b)

202. Which of the following enzymes digests protein in stomach?
a) Trypsin b) Pepsin c) Erepsin d) None of these

203. A young infant may be feeding entirely on mother's milk, which is white in colour but the stools, which the infant passes out is quite yellowish. This yellow colour is due to
a) Intestinal juice b) Bile pigments passed through bile juice
c) Undigested milk protein casein d) Pancreatic juice poured into duodenum

204. Go through the following statements regarding digestion and absorption is humans. Identify the incorrect statements and choose a correct option accordingly
a) If breast feeding is replaced by less nutritive food lacking protein and calories, the infant (below 14 eqn) are likely to suffer from marasmus and kwashiorkor
b) Bile salts of bile juice activates enzyme lipase
c) Lipase present in the pancreatic juices is the principal enzyme for digestion of fat
d) Medulla oblongata of hind brain control reflex action of vomiting

205. What are the various type of secretions that are mixed with the food to facilitate the digestion of food in the intestine?
a) Bile salts, bile pigment and gastric juices
b) Bile, pancreatic juices and intestinal juices
c) Bile, chymotrypsinogen and trypsinogen
d) Bile salts, bile pigments and succus enterics

206. Trypsinogen is converted into active trypsin by the action of
a) Cholecystokinin b) Enterocrinin c) Enterokinase d) Secretin

207. Which of the following does not match?
a) Pancreas- Glisson's capsule b) Antigen- Antibody
c) Thyroid- Goitre d) Enzyme- Substrate

208. Which of the following is involved in the catalysis of link reaction during aerobic respiration?
a) Vitamin-A b) Vitamin-B_1 c) Vitamin-B_6 d) Vitamin-K

209. In human, teeth are
a) Homodont and polyphyodont b) Heterodont and polyphyodont
c) Homodont and diphyodont d) Heterodont and diphyodont

210. FAD, coenzyme is derived from
a) Vitamin-B_1 b) Vitamin-B_3 c) Vitamin-B_2 d) Cyanocobalamin

211. Which of the following is/are the major components of food?
a) Proteins b) Cereals
c) Fats and it derivatives d) All of these

212. The pH of the digestive juices varies in human intestine. What does it means?
a) Medium is slightly acidic b) Medium is slightly basic
c) Medium varies from acidic to basic d) Neither basic nor acidic

213. In human body, the role of bile salts in digestion is to
a) Act as coenzymes during the digestion of carbohydrates b) Emulsify fats and facilitate their absorption
c) Aid in the break-up of proteins into amino acids and their absorption d) Stimulate the pancreas to release its enzymes

214. When breast feeding is replaced by less nutritive food low in proteins and calories; the infants below the age of one year are likely to suffer from
a) Marasmus b) Rickets c) Kwashiorkor d) Pellagra

215. Read the following statements regarding the digestive system and select the correct statement
a) Oesophagus passes through neck, thorax and diaphragm and open into stomach
b) Stomach is located in the upper right portion of the abdominal cavity
c) Stomach, a J-shaped organ is the longest organ of alimentary canal
d) Caecum, a small blind sac is a part of small intestine and host symbiotic bacteria

216. Which part of the small intestine absorb iron, calcium and amino acids?
a) Duodenum b) Jejunum c) Ileum d) Both (a) and (b)

217. Which of the following is called as a detritivore?
a) An animal feeding on decaying organic matter b) An animal feeding on a plant
c) A plant feeding on an animal d) An animal feeding on another animal

218. Bile salts help in
a) Digestion of fat b) Digestion and absorption of fat
c) Digestion of protein d) Digestion of protein and fat

219. Go through the following statements regarding the absorption of nutrients. Identify wheather they are true or false then choose the correct option accordingly
I. Absorption of monosaccharides, alcohol, some water and medicines like asprin occurs in the stomach
II. Fatty acids cannot be absorbed directly
III. Glycerol can reach into the blood and lymph directly
IV. Maximum absorption of water (90%) takes place in the small intestine
V. Large intestine and mouth are not the site of absorption
a) I, II and IV are true while III and V are false
b) I, II, III are true while IV and V are false
c) II, III and IV are false while I and V are true
d) I and II are false while III, IV and V are true

220. Inadequate protein intake leads to kwashiorkor. The subsequent oedema is most closely related to inadequate synthesis of which protein?
a) Gamma globulin b) Glucagon c) Insulin d) Albumin

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

222. The intestinal tract infections are not caused by which of the following organism?
a) Tapeworm b) Roundworm c) Lactobacilli d) Hookworm

223. In the process of digestion and absorption, the peristalsis movement in alimentary canal from oesophagus to rectum is produced by

a) Unstriped muscle of muscular coat
b) Visceral peritoneum
c) Meissner's plexus of submucosa
d) Epithelium layer of mucosa

224. Which combination is mismatched?
a) Vitamin- D-Rickets
b) Thiamine- Beri-beri
c) Vitamin-K-Sterility
d) Niacin-Pellagra

225. Curdling of milk in small intestine takes place due to
a) Trypsin
b) Rennin
c) Ptyalin
d) Chymotrypsin

226. Pepsinogen is secreted by
a) Chief cells
b) Oxyntic cells
c) Mast cells
d) Parietal cells

227. Kupffer's cells are present in
a) Liver
b) Small intestine
c) Pancreas
d) Thyroid gland

228. Why the stool of a breast feeding baby is quite yellowish in colour?
a) Due to undigested milk proteins
b) Due to pouring of pancreatic juices into the duodenum
c) Due to the bile pigment of bile juices
d) Due to the enzymes present in saccus entricus

229. Food is masticated with the help of which part of teeth?
a) Enamel
b) Root
c) Dentine
d) None of these

230. Maltose gives rise to two molecules of
a) Fructose
b) Lactose
c) Glucose
d) Sucrose

231. Lipids, Which can be found in oil based salad dressings and ice cream, during digestion are splitted into
a) Fatty acids and glycerol
b) Glycerol and amino acids
c) Glucose and fatty acids
d) Glucose and amino acids

232. Human dental formula is
a) $I\frac{2}{2}\ C\frac{1}{1}\ Pm\frac{2}{2}\ M\frac{3}{3}$
b) $I\frac{2}{1}\ C\frac{1}{2}\ Pm\frac{2}{2}\ M\frac{3}{3}$
c) $I\frac{1}{2}\ C\frac{2}{1}\ Pm\frac{2}{2}\ M\frac{3}{3}$
d) $I\frac{1}{1}\ C\frac{2}{2}\ Pm\frac{2}{2}\ M\frac{3}{3}$

233. Chief cells of gastric glands are
a) Simple tubular
b) Coiled tubular
c) Branched tubular
d) Compound tubular

234. Which one of the following vitamin is water soluble as well as have antioxidant property?
a) Vitamin-C
b) Vitamin B_1
c) Vitamin-P
d) Vitamin-B_9

235. Thiamine (B_1) deficiency results in
a) Wernicke's syndrome
b) Korsakoff's syndrome
c) Osteonecrosis
d) Tunnel vision

236. Which is the correct sequence of 4 layers of alimentary canal from periphery to centre?
a) Muscularis → Serosa → Mucosa → Submucosa
b) Serosa → Mucosa → Muscularis → Submucosa
c) Serosa → Muscularis → Submucosa → Mucosa
d) Serosa → Mucosa → Submucosa → Muscularis

237. Which part of our body secretes the hormone secretin?
a) Ileum
b) Stomach
c) Duodenum
d) Oesophagus

238. Which of the following does not play a role in blood coagulation?
a) Vitamin-K
b) Vitamin-D
c) Calcium ions
d) Fibrinogen

239. Which of the following is an organic molecule needed by the body in small amounts?
a) Protein
b) Zinc
c) Vitamin-C
d) Monosaccharide

240. In human beings, digestion of proteins, fats and carbohydrates starts from which of the following parts of the alimentary canal?
a) Stomach, intestine and mouth, respectively
b) Only from stomach
c) Intestine, stomach and mouth, respectively
d) Only from intestine

241. Continuous bleeding from an injured part of body is due to deficiency of
a) Vitamin-A
b) Vitamin-B
c) Vitamin-K
d) Vitamin-E

242. Which one of the following pairs of food components in humans reaches the stomach totally undigested?

a) Protein and starch b) Starch and fat c) Fat and cellulose d) Starch and cellulose

243. Which enzymes are responsible to convert the end product of partially hydrolysed food into simple absorbable forms?
a) Enzymes of succus entericus
b) Proteolytic enzyme of pancreatic juice
c) Enzyme of gastric juice
d) All of the above

244. The process of digestion starts from
a) Stomach b) Oesophagus c) Mouth d) Intestine

245. The process by which absorbed food are utilised by the tissues in the living being for energy, growth and maintenance is termed as
a) Absorption
b) Assimilation
c) Catabolism
d) Digestion and absorption

246. Opening of oesophagus into 'J'-shaped, bag-like structure is regulated by
a) Pyloric sphincter
b) Sphincter of oddi
c) Ileocaceal sphincter
d) Gastro oesophageal sphincter

247. Which of the following part in cow's stomach is specialized for microbial digestion of plant material?
a) Rumen b) Reticulum c) Abomasum d) Both (a) and (b)

248. Which of the following processes will be affected by the absence of enterokinase?
a) Lipid → Fatty acid + Glycerol
b) Dipeptides → Amino acid
c) Proteases → Dipeptide
d) Amylase → Maltose

249. A large lymph vessel present in the villus of small intestine is called
a) Crypts b) Lacteal c) Peyer's patches d) Valve of kerkring

250. Most abundant mineral of animal body is
a) Iron b) Sodium c) Potassium d) Calcium

251. Taste buds are present on
a) Small projection found on the upper surface of tongue
b) Small projection found on the lower surface of tongue
c) On both the surface of tongue
d) Behind the tongue

252. The malnutrition disease in man is
a) Cri-du-chat syndrome
b) Klinefelter's syndrome
c) Potbelly syndrome
d) Edward's syndrome

253. As you know that HCl is highly acidic (1.5 to 2.0 pH) in the stomach, however, the epithelium of the mucosa remains unaffected/undissolved. Why?
a) Mucous continues to lubricate the inner lining
b) Bicarbonates present in the gastric juices protect the linings
c) Both (a) and (b)
d) None of the above

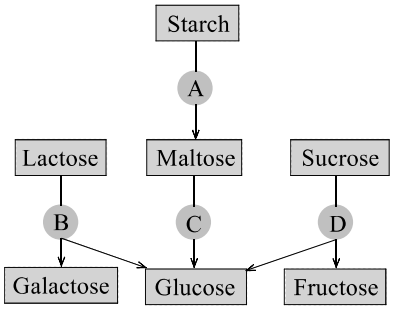
254. Digestion of starch starts from the mouth, whereas …A… is the size of digestion mainly for …B….. Choose the correct combination of options to complete the given statement
a) A-stomach; B-protein
b) A-stomach; B-starch
c) A-small intestine; B-protein
d) A-small intestine; B-starch

255. The fat soluble vitamin is
a) B b) C c) K d) H

256. The main function of lacteals in the human small intestine is the absorption of
a) Glucose and vitamins
b) Amino acids and glucose
c) Water and vitamins
d) Fatty acids and glycerol

257. What is frenulum?
a) It is the fold by which tongue is attached to the floor of oral cavity
b) It is an adenoid which is present on pharyngeal wall
c) It is a tonsil like structure on the lateral wall of palate
d) It is a V-shaped furrow which divides the surface of tongue

258. The following is a scheme showing the fate of carbohydrates during digestion in the human alimentary canal. Identify the enzymes acting at stages indicated as A, B, C and D. Choose the correct option from those given.

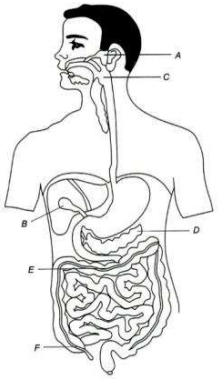


a) A-Amylase, B-Maltase, C- Lactase, D-Invertase
b) A-Amylase, B- Maltase, C-Invertase, D-Latcase
c) A-Amylase, B-Invertase, C-Maltase, D-Lactase
d) A-Amylase, B-Lactase , C- Maltase , D- Invertase

259. Deamination occurs in
a) Kidney b) Liver c) Nephron d) Both (a) and (b)

260. Vitamin-D is produced in human body in
a) Muscles b) Nerves c) Skin d) Bone-marrow

261. The diagram given below depicts the digestive system in humans. Label it from A to F and choose the correct option accordingly



a) A-Parotid gland, B-Liver, C-Larynx, D-Pancreas, E-Transverse colon, F-Caecum
b) A-Parotid gland, B-Gall bladder, C-Pharynx, D-Pancreas, E-Transverse colon, F-Caecum
c) A-Parotid gland, B-Liver, C-Pharynx, D-Pancreas, E-Ascending colon, F-Caecum
d) A-Parotid gland, B-Gall bladder, C-Thymus, D-Pancreas, E-Ascending colon, F-Caecum

262. Chymotrypsin is produced by
a) Liver b) Pancreas c) Stomach d) Duodenum

263. Dental formula of rabbit is
a) $I\frac{2}{1}\ C\frac{0}{0}\ Pm\frac{3}{2}\ M\frac{3}{3}$ b) $I\frac{1}{2}\ C\frac{0}{2}\ Pm\frac{2}{0}\ M\frac{3}{3}$ c) $I\frac{1}{2}\ C\frac{0}{2}\ Pm\frac{3}{0}\ Pm\frac{3}{3}$ d) $I\frac{2}{2}\ C\frac{1}{1}\ Pm\frac{2}{2}\ M\frac{3}{3}$

264. Vitamin-B_{12} is available to ruminants by
a) Plants b) Microorganisms in caecum
c) Animals d) All of the above

265. Which of the following enzymes carries out the initial step in the digestion of milk in humans?
a) Rennin b) Lipase c) Trypsin d) Pepsin

266. Process of absorption of nutrients is carried out by
a) Passive transport b) Facilitated transport c) Active transport d) All of the above

267. Part of bile juice useful in digestion is
a) Bile salt b) Bile pigment c) Bile matrix d) All of these

268. Bile helps in the digestion of fat through
a) Emulsification b) Alkalinity c) Forming micelles d) All of these

269. Which hormone is also known as Gastric Inhibitory Peptide (GIP)
a) Enterokinase b) Enterogastrone
c) Cholecystokinin d) Vasoactive intestinal Peptide (VIP)

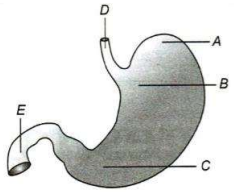
270. Salivary amylase is also known as
a) Ptyalin b) Gastrin c) Glyoxylase d) Pepsin

271. Choose true and false statements regarding the digestive glands of humans
I. It is a compound gland as it posseses both exocrine and endocrine parts
II. Exocrine parts secretes alkaline pancreatic juices
III. Endocrine part secretes hormones like insulin and glucagon
IV. They are surrounded by glisson's capsule
V. Secretion of these gland's forms gastric juices
Pick the correct option accordingly
a) I, II, III are true while IV and V are false b) I, II, III are false while IV and V are true
c) All statement are true d) All statement are false

272. The deficiency of this vitamin is known to cause abortion in early pregnancy of rat?
a) Retinol b) Calciferol c) Tocopherol d) Naphthoquinone

273. Starch is converted to maltose by the action of
a) Invertase b) Amylase c) Sucrose d) Maltase

274. What is the correct labelling of diagram given below? Choose the correct option accordingly



a) A-Fundic portion, B-Cardiac region, C-Pyloric region, D-Food pipe, E-Wind pipe
b) A-Fundus, B-Pyloric region, C-Cardiac region, D-Oesophagus, E-Duodenum
c) A-Fundic region, B-Cardiac region, C-Pyloric region, D-Oesophagus, E-Duodenum
d) A-Cardiac region, B-Pyloric region, C-Fundic region, D-Oesophagus, E-Duodenum

275. Go through the following statements regarding the disorders of the digestive system. Choose the correct statements and select appropriate option from the codes given below
I. Indigestion is caused by the poor supply of digestive enzyme, overeating, anxiety and a lot of junk food
II. Constipation, an irregular movement of bowl is caused due to poor habits, fiberless diet, emotional stress and certain drugs
III. Indigestion can be caused by milk of magnesia
IV. Ejection of stomach content is controlled by hypothalamus of prosencephalon
a) All statements are correct b) All statements are incorrect
c) I and II statements are correct d) III and IV statements are correct

276. Which of the following is a correct dental formula for the child falling under age group 5 to 6 yr?
a) I 2/2, C 1/1, Pm 2/2, M 0/0 b) I 2/2, C 1/1, Pm 2/2, M 3/3
c) I 1/1, C 2/2, Pm 2/2, M 3/3 d) I 2/2, C 2/2, Pm 1/1, M 3/3

277. Kupffer's cells are
a) Phagocytic b) Non-phagocytic c) Myosin d) Fibrin

278. In which of the following secretions, the enzymes, like maltase, isomaltase, sucrase, lactase, enterokinase, aminopeptidase, dipeptidase, nucleosidases, nucleotidases and α-dextrinase are present?
a) Pancreatic juices b) Intestinal juices c) Gastric juices d) Both (a) and (b)

279. Liver of man is
a) Bilobed b) Three-lobed c) Four-lobed d) Five-lobed

280. By which process, the end products of milk sugar in small intestine are absorbed?

a) Passive transport b) Active transport c) Facilitated transport d) Osmosis

281. Success entericus is secreted by
a) Crypts of Leiberkuhn b) Brunner's glands c) Both (a) and (b) d) None of these

282. The gastrointestinal functions like, secretion and motility is controlled by which system?
a) Intrinsic neural system b) Extrinsic neural system
c) Both (a) and (b) d) None of the above

283. Complete the equation.
Nucleic acids $\xrightarrow{\text{Nucleases}}$ Nucleotides $\rightarrow \cdots \ldots \ldots$
a) Monoglycerides b) Diglycerides c) Disaccharides d) Nucleosides

284. Pulp cavity of teeth is lined by
a) Odontoblast b) Chondroblast c) Osteoblast d) Amyloblast

285. What is gastroporesis?
a) Inflammation of the lining of the stomach
b) Stomach content flows back up into the oesophagus
c) Delayed movement of food from the stomach to the small intestine
d) Bleeding in the digestive tract

286. The gastric juices contain
a) Trypsin, rennin, pepsin b) Pepsin, trypsin, amylase
c) Pepsin, rennin, carbohydrates d) Pepsin, lipase, rennin

287. The sphincter of Oddi found in man, guards the
a) Pancreatic duct b) Hepatopancreatic duct
c) Bile duct d) Cystic duct

288. Which of the following is the largest gland in an adult man?
a) Thymus b) Liver c) Thyriod d) Pancreas

289. Go through the following statements regarding the absorption of fats. Find correct and incorrect statements and choose an option accordingly from the codes given below.
I. Micelles and chylomicron are concerned with the absorption of fats
II. Chylomicrons are water soluble dropelets of fat which contains triglycerides, sterol and phospholipids
III. Micelles are water soluble droplets of fatty acids and glycerols which are formed by the action of bile pigments on fats and glycerol
IV. Chylomicron, protein coated small vesicles are released from the intestinal cells into the blood stream by lacteals
a) II and IV are correct while I and III are incorrect b) I, III and IV are correct, while II is incorrect
c) I, II and IV are correct while III is incorrect d) IV and I are correct while II and III are incorrect

290. Wilson's disease is associated with the abnormal metabolism of
a) Iron b) Potassium c) Iodine d) Copper

291. Rennin is secreted in which part of alimentary canal?
a) Stomach b) Kidney c) Duodenum d) Small intestine

292. Cud chewing animals are known as
a) Frugivorous b) Sanguivorous c) Ruminants d) Cannibals

293. Which component of gastric juices inactivates salivary amylase?
a) Mucous b) Rennin c) CCl d) Pepsin

294. The abnormal frequent movement of the bowl and increased liquidity of the faeces is called
a) Vomiting b) Indigestion c) Constipation d) Diarrhoea

295. Gastrointestinal hormones secretion and cholecystokinin secreted by duodenum is responsible for the stimulation and contraction of
a) Pancreas and gall bladder b) Liver, gall bladder and pancreas
c) Gall bladder and cells of gastric glands d) Salivary glands and gall bladder

296. Which combination of vitamin and respective disease is not correct?
a) Vitamin B_2 – Pellagra b) Vitamin B_{12} – Pernecious anaemia

c) Vitamin B_5 – Dermatitis
d) Vitamin-E – Infertility

297. Which of the following can be absorbed by hepatic caeca?
a) Glucose and amino acid
b) Glucose and lipid
c) Lipid
d) Glucose

298. The process of resynthesis of food materials from simpler food molecules is called
a) Biosynthesis
b) Catabolism
c) Absorption
d) Assimilation

299. The accumulation of faeces in the rectum and distension of the rectal wall initiates the feeling of defecation due to
a) Defecation reflex
b) Deamination
c) Irregular movement of bowl
d) None of the above

300. Pepsin is inactivated at pH
a) Below 3
b) Below 2
c) Above 5
d) Above 3

301. Which form of fats is absorbed into the intestinal cells?
a) Micelles
b) Chylomicrons
c) Fatty acids
d) Both (a) and (b)

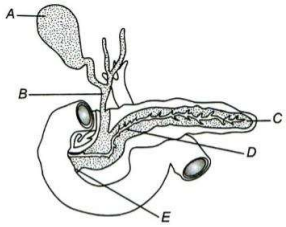
302. The type of dentition found in human being is
a) Polyphyodont, thecodont
b) Diphyodont and thecodont
c) Diphyodont and acrodont
d) Diphyodont and homodont

303. Which one of the following equation match correctly with the action of enzymes on the given substrate and regarding the end product of the reaction?
a) Stomach $\longrightarrow$ Fats $\xrightarrow{\text{Lipase}}$ Micelles
b) Small intestine $\longrightarrow$ Protein $\xrightarrow{\text{Pepsin}}$ Amino acid
c) Small intestine $\longrightarrow$ Starch $\xrightarrow{\text{amylase}}$ Disaccharides
d) Duodenum $\longrightarrow$ Triglycerides $\xrightarrow{\text{Trypsin}}$ Monoglycerides

304. Bile juice is stored in which organ of human body?
a) Gall bladder
b) Liver
c) Kidney
d) Pancreas

305. Secretin hormone is secreted from
a) Stomach and stimulates gastric gland
b) Duodenum and stimulates liver
c) Thyroid and stimulates thyroid gland
d) Duodenum and stimulates pancreas

306. The given below diagram represents a duct system of pancreas, liver and gall bladder. Label the diagram from A to C



a) A-Gall bladder, B-Common bile duct, C-Hepato pancreatic duct, D-Pancreas, E-Pancreatic duct
b) A-Gall bladder, B-Bile duct, C-Hepato pancreatic duct, D-Pancreatic duct, E-Pancreas
c) A-Gall bladder, B-Bile duct, C-Pancreatic duct, D-Pancreas, E-Hepato pancreatic duct
d) A-Gall bladder, B-Common bile duct, C-Pancreas, D-Pancreatic duct, E-Hepato pancreatic duct

307. Hydrolysis of milk sugar gives rise to
a) Two molecules of lactose
b) Two molecules of glucose
c) One molecule of glucose and one molecule of fructose
d) One molecule of glucose and one molecule of galactose

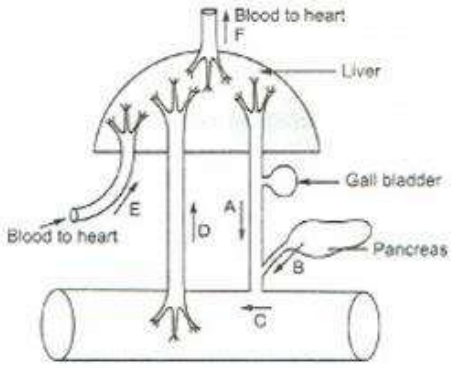
308. Proportion of which of the following should be increased in diet improve strength and growth of bones?
a) Vitamin-D, Ca^{2+} and vitamin-K
b) Vitamin-D, Ca^{2+} and iodine
c) Vitamin-D, Ca^{2+} and vitamin-A
d) Vitamin-A, Ca^{2+} and Zn^{2+}

309. The juice containing sodium glycocholate is released under the influence of
a) Secretin
b) Cholecystokinin
c) Enterogasterone
d) Enterocrinin

310. Which is the largest gland of human body?
a) Gastric gland b) Pancreas c) Liver d) Salivary gland

311. Seggregate the following statements into true and false category. Choose the right answer from the codes given below
I. Mucosal epithelium has goblet cells which secrete mucous and helps in lubrication
II. Mucosa forms gastric glands in the stomach and crypts in between the bases of villi in intestine
III. Cells lining the villi has brush border or microvilli
IV. All the four basic layers in the wall of gut never shows modification in different parts of the alimentary canal
a) All the statements are correct b) I, II and III are true while IV is false
c) I, II and III are false while IV is true d) I, IV and false, while II and III are true

312. The diagram below shows how things get to and from the liver. They are labeled as A, B, C, D, E and F. Which one of the following labellings is the correct one?



a) A is the hepatic portal vein and E is the hepatic vein
b) C is the intestine and F is the hepatic portal vein
c) D is the hepatic portal vein and F is hepatic vein
d) B is the pancreatic artery and E is the hepatic artery

313. Which of the following is/are essential fatty acids for man?
a) Arachidonic acid b) Linolenic acid c) Linoleic acid d) All of these

314. Chloragen cells help in
a) Respiration b) Reproduction c) Circulation d) Nutrition

315. What is the function of buccal cavity?
a) Mastication of food b) Digestion of fats c) Both (a) and (b) d) None of the above

316. Carboxypeptidase is an enzyme secreted by
a) Salivary gland b) Stomach c) Gall bladder d) Pancreas

317. In which of the following organ, putrefying bacteria are present?
a) Intestine b) Colon c) Stomach d) Liver

318. For how much duration, food is stored in the stomach?
a) 3-4 hours b) 2-4 hours
c) 4-5 hours d) More than 5 hours but less than 6 hours

319. If for some reason our goblet cells are non-functional, this will adversely affect
a) Production of somatostatin
b) Secretion of sebum from the sebaceous glands
c) Maturation of sperms
d) Smooth movement of food downwards the intestine

320. Wisdom teeth are
a) Last molars b) Last premolars c) Incisors d) Canines

321. By which process, absorption of galactose, electrolytes, like Na^+ and K^+ and some amino acids takes place?
a) Active process b) Passive process c) Simple diffusions d) Osmosis

322. Angiotensinogen is a protein produced and secreted by

a) Macula densa cells
b) Endothelial cells (cells lining the blood vessels)
c) Liver cells
d) Juxtaglomerular (JG) cells

323. Both the crown and root of a tooth is covered by a layer of bony hard substance called
a) Enamel b) Dentine c) Bony socket d) Cement

324. A balanced diet lacks
a) Nucleic acid and enzyme
b) Fats and carbohydrates
c) Proteins and vitamins
d) Minerals and electrolytes

325. Brown colour of the stool is due to the presence of stercobilinogen and stercobilin, which are the derivatives of
a) Bilirubin b) Biliverdin c) Bile salt d) Bile pigment

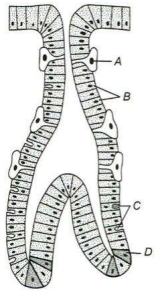
326. These absorption of water, alcohol and monosaccharides occur in
a) Gastric mucosa
b) Mucosa of ileum
c) Intestinal mucosa
d) Through out epithelium of stomach

327. The form, in which the synthesised fats are liberated from the intestinal wall into the lymph present in the lymphatic capillaries is
a) Micelles b) Chylomicrons c) Fatty acids d) Both (a) and (b)

328. Which one of the following inhibits the coagulation of blood in the human circulatory system?
a) Silver affinity cells of gastric epithelium
b) Liver, situated in the upper right side of abdominal cavity
c) Delta (δ) cells of endocrine part of the pancreas
d) Brunner' gland, present in the duodenum of intestine

329. Sphincter of oddi found in human being guards
a) Opening of ampula into duodenum
b) Opening of hepatic ducts before joining the cystic duct
c) Opening of stomach into duodenum
d) Opening of cystic duct into pancreatic duct

330. The given below diagram represents the gastric glands. Label it from A to D and choose the correct option accordingly

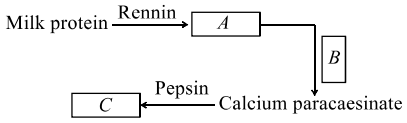


a) A-Oxyntic cell, B-Chief cell, C-Mucous cell, D-Argentaffin cell
b) A-Argentaffin cell, B-Oxyntic cell, C-Mucous cell, D-Chief cell
c) A-G cell, B-Chief cell, C-Mucous cell, D-Argentaffin cell
d) A-Oxyntic cell, B-G cell, C-Mucous cell, D-Chief cell

331. The innermost layer of human alimentary canal forms numerous finger-like projections in the small intestine which are known as
a) Villi b) Rugae c) Peyer's patches d) Both (a) and (b)

332. The major site of protein breakdown to form free amino acids is in the environment of
a) Kidney b) Spleen c) Liver d) Bone-marrow

333. Complete the given equation and choose the correct option accordingly



a) A-Caesin, B-Ca^{2+}, C-Peptones
b) A-Ca^{2+}, B-Peptones, C-Caesin

c) A-Paracaesin, B-Ca^{2+}, C-Peptones d) A-Ca^{2+}, B-Paracaesin, C-Peptones

334. In the homeostatic control of blood sugar level, which organs function respectively as modulator and effector?
a) Liver and islets of Langerhans b) Hypothalamus and liver
c) Hypothalamus and islets of Langerhans d) Islets of Langerhans and hypothalamus

335. Symbiotic bacteria present in the colon of large intestine produce
a) Cyanocobalamin b) Riboflavin c) Thiamine d) All of these

336. Major site of absorption of nutrients in human beings is
a) Stomach b) Small intestine c) Large intestine d) Both (a) and (b)

337. Bile secretion is proportional to the concentration of
a) Protein b) Fat c) Carbohydrate d) None of these

338. In which part of the small intestine, starch is digested
a) Duodenum b) Jejunum c) Ileum d) All of these

339. Find out the correctly matched pair.
a) Pepsinogen - Zymogenic cells b) HCl - Goblet cells
c) Mucus - Oxyntic cells d) Pancreatic juice - Salivary glands

340. In which layer of the wall of alimentary canal, secretory glands are present?
a) Serosa b) Mucosa c) Muscularis d) Submucosa

341. Consider the following statements regarding the digestion and absorption of food in human and identify the correct and incorrect statement
I. Antipellagra vitamin is nicotinamide which is present in milk, yeast, meat, leafy vegetable and whole grains
II. Deficiency of vitamin thiamine causes loss of appetite, muscle depreciation, fatigue and mental confusion
III. Prolonged deficiency of tocopherol reduces reproductive capacity in human being
IV. Gastrovascular cavity performs, *i.e.*, both function digestion and distribution of nutrients
Choose the correct option accordingly
a) All statements are incorrect b) All statements are correct
c) I and II are correct only d) I and II are incorrect only

342. What do you mean by the absorption of food?
a) It is a process by which the end products of the digestion passes through the intestinal mucosa into blood or lymph
b) It is a process of transportation of digestive food from the human alimentary canal to blood and lymph
c) It is a process to utilise the absorbed food substances
d) Absorption is a process by which nutrients are absorbed from the large intestine into the blood and lymph through its mucous membrane

343. Name that part of small intestine in which the pyloric region of stomach opens
a) Duodenum b) Ileum c) Jejunum d) None of the above

344. Secretion of gastric juice is controlled by
a) Gastrin b) Cholecystokinin c) Enterogastrin d) None of these

345. How many salivary glands are present in human being?
a) 6 b) 10 c) 8 d) 12

346. Which one is not a part of large intestine?
a) Rectum b) Caecum c) Ileum d) Colon

347. The lactase hydrolyses lactose into
a) Glucose b) Glucose and galactose
c) Fructose d) Glucose and fructose

348. What is cholecystokinin?
a) Enzyme b) Bile-pigment
c) Gastro- intestinal hormone d) Lipid

349. Identify wheather the given statements are true or false in the context of deficiency of essential amino acids and choose the correct option accordingly
I. Incomplete break down of proteins in the digestive system
II. Deregulation of mood and sleep
III. Increased production of sulphur
IV. Decreased amount of niacin
a) I – True
II – True
III – False
IV – True
b) I – True
II – True
III – True
IV - False
c) I – False
II – True
III – True
IV - False
d) I – True
II – False
III – False
IV – True

350. Which of the following symptoms is related to the deficiency of antioxidant vitamins?
a) Retrolental fibroplasia
b) Truncal and limb atoxia
c) Scurvy
d) All of these

351. Which one is not associated with the secretion of saliva in human being?
a) Paratoids glands
b) Sublinguals glands
c) Zymogenic cells
d) Sub-maxillary glands

352. In intestine, food materials are absorbed through
a) Villi
b) Subtentacular cells
c) Sub-mucosa
d) Gastric glands

353. Chymotrypsinogen, trypsinogen and nucleases along with amylases and lipases are
a) Inactive forms of enzyme in gastric juices
b) Active enzymes of intestinal juices
c) Inactive enzymes of pancreatic juices
d) Active enzymes of intestinal juices

354. Choose the most appropriate option to describe the composition of human saliva
a) Amylase, hydrolase
b) Electrolytes amylase/ptylin, lysozymes and mucous
c) Amylase/ptylin, mucous
d) Ptylin only

355. Production of glucose from amino acids, fatty acids and glycerol is called
a) Glycogenesis
b) Gluconeogenesis
c) Glycogenolysis
d) Glycolysis

356. With reference to a normal human being, which one of the following statements is not correct?
a) Human saliva is slightly alkaline
b) An adult human may secrete 1 to 1.5 litres of saliva per day
c) Saliva is secreted by six pairs of salivary glands in human beings
d) The salivary enzyme (ptyalin) breaks down cooked starch into maltose

357. Which vitamin should not be stored?
a) Calciferol
b) Retinol
c) Niacin
d) Ascorbic acid

358. Which of the following match is correct?
a) Rennin – Protein
b) Trypsin – Starch
c) Invertase – Sucrose
d) Amylase – Lactose

359. Which one of the following amino acids is an essential part of human diet?
a) Glycine
b) Phenylalanine
c) Serine
d) Aspartic acid

360. Sacculus rotundus is a dilated part at posterior end of
a) Ileum
b) Oesophagus
c) Ilium
d) Colon

361. Which of the following is absorbed from undigested food in the large intestine?
a) Water and vitamins
b) Water and product of bacterial digestion
c) Water and salt
d) Water and alcohols

362. Which one of the following sequence is in correct order?
a) Descending portal colon → Rectum → Anus
b) Colon → Anus → Rectum
c) Stomach → Jejunum → Duodenum
d) Ileum → Colon → Caecum

363. Which enzyme is responsible for the digestion of milk in infants?
a) Pepsin b) Trypsin
c) Rennin d) Various proteolytic enzyme

364. Which one statement is incorrect regarding the process of digestion and absorption in humans?
a) Small intestine is the major site for the absorption of all nutrients
b) Around 40% of the total absorption of nutrients takes place in the proximal part of the small intestine
c) Drugs, alcohols, little water and salt are absorbed in the stomach through the mucous membrane
d) Large intestine is the site of absorption for water and products of bacterial digestion

365. Deficiency of which vitamin causes type 1 and type 2 diabetes?
a) Vitamin-B b) Vitamin-A c) Vitamin-D d) Vitamin-K

366. Which of the following is a water soluble vitamin?
a) Vitamin-A b) Vitamin-B c) Vitamin-D d) Vitamin-E

367. Which one of the following pairs of the kinds of cells and their secretion are correctly matches?
a) Oxyntic cells - A secretion with pH Between 2.0 And 3.0
b) Alpha cells of islets of Langerhans - Secretion that decreases blood sugar level
c) Kupffer's cells - A digestive enzyme that hydrolyses nucleic acids
d) Sebaceous glands - A secretion that evaporates for cooling

368. Digestion is accomplished by
a) Mechanical and chemical processes b) Chemical processes only
c) Mechanical processes only d) None of the above

369. Argentaffin may arise in
a) Pancreas b) Bile duct
c) Gastro-intestinal tract d) None of these

370. Prolonged deficiency of thiamine in human diet may lead to
a) Pellagra b) Beri-beri c) Anaemia d) Haemorrhage

371. Which action of digestive enzyme is/are correct regarding its site of action, substrate and the end product?

	Enzyme	Site of Action	Sub strate	End product
i	Rennin	Calf's stomach	Casein	Ca Paracaesinate
ii	Pepsin	Human's stomach	Proteins	Two or more molecule of a mino acid
iii	Nuclease	Small intestine	Nucleosides	Nucleosides and - iPO_4
iv	Entero - kinase	Small intestine	Trypsinogen	Trypsin

a) All actions are correct b) Actions I, II and III are correct
c) Action I, II and IV are correct d) Only action III is correct

372. Continued consumption of a diet rich in butter, red meat and eggs for a long period may lead to
a) Vitamin-A toxicity b) Kidney stones
c) Hypercholesterolemia d) Urine laden with ketone bodies

373. Which one is a disorder of overnutrition?

a) Kidney and gall bladder stone
b) Scurvy and osteomalacia
c) Hypercholesterolemia and fluorosis
d) Vitamin-A toxicity and urine laden with ketone bodies

374. The epithelial cells lining the stomach of vertebrates is protected from damage by HCl because
a) Hydrochloric acid is too dilute
b) The epithelial cells are resistant to the action of HCl
c) HCl is neutralized by alkaline gastric juice
d) The epithelial cells are covered with a mucous secretion

375. In rabbit, the digestion of cellulose takes place in
a) Colon b) Ileum c) Caecum d) Secretin

376. Read carefully the following statements regarding the absorption of nutrients. Find the incorrect statements and choose the correct option from the given below codes
I. Absorption of carbohydrates takes place in the stomach and jejunum part of intestine
II. The water soluble end products of food can reach the blood and lymph directly
III. Large intestine and buccal cavity do not functions as the site of absorption
IV. Large intestine is the site of absorption of about 90% of the total water present in the hydrolysed food
Codes
a) I, III and IV are incorrect
b) I, II and IV are incorrect
c) I and II are incorrect
d) III and IV are incorrect

377. Which of the following is correct chronological order for enzyme activity of some enzymes taking part in protein digestion?
a) Pepsin → Trypsin → Peptidase
b) Pepsin → Peptidase→ Trypsin
c) Trypsin → Pepsin→ Peptidase
d) Peptidase→ Trypsin→ Pepsin

378. Vitamin-C is present as
a) Oxalic acid b) Glutamic acid c) Ascorbic acid d) Citric acid

379. Deficiency of which vitamin, causes loss of appetite, mental confusion, fatigue and muscle depreciation?
a) Vitamin-K b) Vitamin-C c) Thiamine d) Riboflavin

380. Treatment with alloxan destroys
a) STH cells
b) Alpha cells of islets of Langerhans
c) Beta cells of islets of Langerhans
d) Cells of Leydig

381. Which one is not true about vitamins?
a) Vitamins are organic catalysts
b) Vitamins are indispensable for life
c) Vitamins act as a source of energy
d) Tocopherol is anti-sterility vitamin

382. Enzyme present in saliva is
a) Maltase b) Ptyalin c) Sucrase d) Invertase

383. Which of the following is true for vitamin-C?
a) Also called as ascorbic acid
b) Also called as fumaric acid
c) Obtained from citrus fruits
d) Both (a) and (c)

384. The back flow of faecal matter in the large intestine is prevented by the presence of
a) Epiglottis
b) Sphincter of Oddi
c) Ileo-caecal valve
d) Pyloric sphincter

385. Elephant tusks are
a) Molars b) Canines c) Incisors d) Premolars

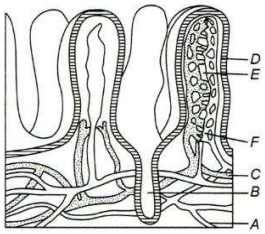
386. Which of the following best describes the process of nutrition?
a) A process to obtain necessary energy and growth substances
b) A process to obtain energy from foods
c) A process to supply the necessary nutritive elements to body
d) A sum total of processes which provides the necessary nutritive element for growth, maintenance and

to meet the need of energy

387. Name the process by which swallowed food is conveyed to pharynx and oesophagus respectively
a) Deglutition b) Peristalsis c) Ingestion d) Succus entricus

388. The vitamin, synthesized by bacteria is
a) B b) D c) K d) E

389. Label the given diagram of transverse section of mucosa of small intestine showing small finger like projections. Choose the correct option accordingly



a) A-Vein, B-Crypt, C-Artery, D-Villi, E-Lacteal, F-Capillaries
b) A-Artery, B-Crypt, C-Vein, D-Villi, E-Capillaries, F-Lacteal
c) A-Vein, B-Artery, C-Crypt, D-Villi, E-Capillaries, F-Lacteal
d) A-Villi, B-Lacteal, C-Capillaries, D-Artery, E-Crypt, F-Vein

390. Which of the following molecule can be digested by pancreatic juices?
a) Fat, protein and nucleic acids b) Carbohydrates and proteins
c) Carbohydrates and fats d) All of the above