Human Physiology DIGESTION & ABSORPTION

ORAL CAVITY

1) Hardest part of our body is (RPMT 2006)

(a) Skull (b) brain (c) teeth (d) cartilage (c)

2) Exposed part of the tooth is called

(a) Root (b) neck (c) crown (d) dentine (c)

3) Ectodermal cells that secrete enamel are called (VMMC 2006)

(a) osteoblasts (b) odontoblasts

(c) ameloblasts (d) chondroblasts (c)

4) The nutrition to the tooth is supplied through

(a) crown (b) enamel (c)alveolus (d) pulp cavity (d)

5) The pulp cavity is lined by

(a) osteoblasts (b) ameloblasts (c) odontoblasts (d) chondroblasts (c)

6) Which of the following teeth help in cutting?

(a)Molar (b) Incisor (c) Canine (d) Premolar (b)

7) Grinding or cheek teeth are

(a) Incisors (b) canines (c) premolars (d) premolars and molars (d)

8) The dentition not found in man is

(a) thecodont (b)heterodont (c) diphyodont (d)lophodont (d)

9) Mammalian teeth are not

(a) Homodont (b) thecodont (c) heterodont (d) diphyodont (a)

10) Teeth of an adult man not present in milk dentition are

(a) Molars (b) canines (c) incisors (d) premolars (d)

11) How many teeth appear twice during the life span of an individual

(AFMC 2004'KCET 2005)

(a) 12 (b) 20 c) 28 (d) 32 (b)

12) Wisdom teeth in man are

(a) Incisors (b) last molars (c) first molars (d) first premolars (b)

13) How many wisdom teeth are found in man?

(a)Six (b) Two (c) four (d) Eight (c)

14) The total number of canines in the permanent dental set of humans is

(KCET 2002, Orissa JEE 2002)

(a) 4 (b) 6 (c) 8 (d) 12 (a)

15) The element that hardens the tooth enamel

(a)Iodine (b) Sodium (c) Florine (d) calcium (c)

16) Dental formula is given to show

(a) Structure of molars (b) homodont condition

(c) diphyodont condition (d)number and types in both jaws (d)

17) Bulk of the tooth in a mammal is made of

(a) Root cavity (b) dentine (c) enamel (d) pulp (b)

ALIMENTARY CANAL

18) The part of alimentary canal which passes through diaphragm

(a) Pharynx (b) oesophagus (c) stomach (d) small intestine. (b)

19) Shape of stomach in man

(a) L- shaped (b)C-shaped (c) T-shaped (d) J-shaped (d)

20) Oesophagus opens into

(a).cardiac stomach (b) fundic stomach c) pyloric stomach (d)pharynx
(a)

21) U- shaped part of alimentary canal is

a) Pharynx b) duodenum c) jejunum d) ileum
(d)

22) Alimentary canal is usually longer in

(a) Carnivores (b) herbivores (c) omnivores (d) insectivores
(b)

23) Vestibule is the space between

(a) Gums and lips (b) tongue and teeth

(c) Tongue and palate (d) incisor and premolar (a)

24) Tongue is attached to the floor of buccal cavity by

(a) frenulum (b) mesentery (c) lingual papilla (d) falciform ligament.(a)

25) The common passage for swallowing and breathing is

(a)Gullet (b) Glottis (c) Larynx (d) Pharynx
(d)

26) The structure that prevents the entry of food into trachea during deglutition in mammals is

(a) Palate (b)larynx (c)pharynx
(d)epiglottis

27) Which part of alimentary canal does not produce any digestive enzyme?

(a) Mouth (b) stomach (c) duodenum (d) oesophagus

28) Opening of oesophagus is called

(a) Gullet (b) glottis (c) larynx (d) pharynx

29) The valve between the oesophagus and stomach is called

(a) Gastric valve (b) ileocecal valve

(c) Pyloric sphincter (d) cardiac sphincter

30) Reverse flow of food in the stomach is prevented by (EAMCET 2005)

(a) Uvula (b) pyloric sphincter (c) ileocecal valve (d) cardiac sphincter

31) Narrow distal part of stomach leading to the intestine is called

(a) cardia (b)pyloric (c) pharynx (d)duodenum

32) Ileum is

(a) First part of small intestine (b) second part of small intestine

(c) Third part of small intestine (d) not a part of small intestine.

33) The layer below serosa of alimentary canal is

(a) Visceral peritoneum (b) submucosa (c) muscularis (d) mucosa

34) In which layer of stomach is gastric glands located (GujaratCET2008)

(a) serosa (b) mucosa (c) submocosa (d) muscularis mucosa

DIGESTIVE GLANDS

35) Position of sublingual glands

(a) Below tongue (b) below eye (c) behind pinna (d) near lower jaw

36) Glisson's capsule is associated with

(a) Salivary glands (b) liver (c) pancreas (d) spleen

37) Number of salivary glands in human beings

(a) 5 pairs (b) 4 pairs (c) 3 pairs (d) 2 pairs

38) Saliva is secreted by

(a) Pancreas (b) gall bladder (c) gastric glands (d) sublingual glands

39) Smallest salivary glands

(a) Parotid (b) sublingual (c) submaxillary (d) infraorbital

40) Submaxillary glands pour their secretions through

(a) Stenson's duct (b) Wharton's duct (c) nasopaltine duct (d)Bartholin's duct

41) Wharton's duct is associated with

(a)Sublingual gland (b) Brunner's gland (c) Parotid gland (d) Submaxillary gland

42 Largest salivary gland in man is

(a)Parotid (b) Sublingual (c) Infraorbital (d) Submaxillary

43) Parotid glands are located below

(a) Eye (b) tongue (c) floor of the mouth (d) external auditory meatus.

44) Brunner's glands are found in

(a) Wall of rectum (b) mucosa of ileum

(c) submucosa of stomach (d) submucosa of duodenum

45) Brunner's glands secrete

(a) Mucus (b) maltase (c)erepsin (d)trypsinogen

46) Crypts of Lieberkuhn are present in

(a)intestine (b) stomach (c) oesophagus (d) Colon

47) Crypts of Lieberkuhn secrete

(a)bile juice (b) gastric juice (c)saliva (d) succus entericus

48) The largest gland in our body is

(a) Liver (b) pituitary (c) thyroid (d) pancreas

49) Liver of man is

(a) 2-lobed (b) 3- lobed (c) 4-lobed (d) 5-lobed

50) Kupffer cells are found in

(a) Liver (b) pancreas (c) small intestine (d) colon

51) Hepatocytes secrete

(a) Lipase (b) bile with enzymes (c) bile without enzymes (d) gastric juice with enzymes

52) Which of the following represent bile salts?

a) Bilirubin,Biliverdin (b)Bilirubin, Hemoglobin

(c)Glycocholates,taurocholates (d) Bicarbonates, bilirubin

53) Pancreas has

a) Exocrine function (b) endocrine function

c) paracrine function (d) both exo and endocrine function

54) Cystic duct arises from

a) Liver (b) kidney (c) pancreas (d) gall bladder

55) Function of gall bladder is to

a) Store bile (b) secrete bile (c) store hormones (d) form bile salts

56) Liver stores food in the form of

(a)ATP (b) Glucose (c) Glycogen (d) Albumen

57) Hydrochloric acid in the stomach is secreted by (BCECE2004)

(a) Chief cells (b) parietal cells (c) zymogen cells (d) neck cells

58) The delicious food generally makes mouth watery. This is due to:

(a) Neural response (b) optic response (b) hormonal response (d) olfactory response

59) Daily secretion of saliva in man is about:

(a) 100ml (b) 250ml (c) 500ml (d) 1000ml

60) Salivary amylase is also known as:

(a) Ptyalin (b) gastrin (c) Lipase (d) pepsin

61) pH of saliva is:

(a) 7 (b) 8 (c) 6.8 (d) 9.5

62) Ptyalin of acts upon:

(a) Fat (b) lipid (c) starch (d) protein

63) Ptyalin of saliva acts in:

(a) Slightly acidic medium (b) slightly alkaline medium

(c) neutral medium (d) all types of media

64) Which of the following digestive juices have the minimum pH? (AIIMS 2002)

(a)Bile (b) Saliva (c) Gastric Juice (d) Pancreatic juice

65) Which two enzymes are present in human gastric juice?

(a) HCL and pepsin (b) Pepsin and rennin (c) Trypsin and erepsin (d) Trypsin and rennin

66) Which cells of gastric mucosa secrete pepsinogen? (DPMT 2007)

(a)Goblet (b) Parietal (c) Oxyntic (d) Chief cells

67) Zymogen cells of gastric glands secrete:

(a) Pepsin (b) trypsin (c) pepsinogen (d) chymotrypsin

PROCESS OF DIGESTION

68) Essentially the word 'digestion' means: (CPMT 2005; JIPMER 2006)

(a) Burning of food (b) oxidation of food

(c) Hydrolysis of food (d) breakdown of food

69) All digestive enzymes are:

(a) Ligases (b) oxidases (c) hydrolases (d) transferases

70) If pH of stomach is made 7, which component of food would be affected?

(a)Fat (b) Starch (c) Protein (d) Sucrose

71) Curdling of milk in stomach occurs by the action of: (AIIMS 2002)

(a) Rennin (b) trypsin (c) erepsin (d) chymotrypsin

72) Rennin acts on milk proteins and converts: (JIPMER2002)

(a) Caseinogen to casein (b) casein into paracasein

(c) Caseinogens to paracasein (d) paracasein into caseinogen

73) The enzyme trypsin is found in: (Kerala PMT 2002; St.Johns MC 2002)

(a)mucus (b) saliva (c)stomach (d) pancreatic juice

74) Lactose is hydrolysed into: (COMEDK's 2007)

(a) Fructose only (b) glucose only (c) glucose+fructose (d)glucose + galactose

75) The main function of lacteals in the villi of human small intestine is the absorption of: (K-CET 2005, 06)

(a) Glucose and vitamins (b) fatty acids and glycerol

(c) Water and mineral salts (d) amino acids and glucose

76) Which one is different from the category of other three?

(a) Ptyalin (b)Secretin (c) Gastrin (d) Glucagon

77) Carboxy peptidase is an enzyme secreted by: (Kerala PMT 2004)

(a) Stomach (b) pancreas (c) intestine (d) gall bladder

78) In which of the following, putrefying bacteria are present? (BHU 2006; Wardha 2008)

(a) Liver (b) colon (c) Stomach (d) Intestine

79) Pancreatic juice is released into:

(a) Ileum (b) jejunum (c) stomach (d) duodenum

80) Proteolytic enzymes present in the pancreatic juice are: (BHU 2007)

(a) Pepsin (b) elastase (c) salivary amylase (d) chymotrypsin

81) Obesity is due to extra consumption of:

a) Carbohydrates b) Proteins c) Fats d) Both (a) and (c)

82) What is common among amylase, rennin and trypsin?

a) These are all proteolytic enzymes b) These are all protein

c) These are all produced in stomach d) these act at lower than7

83) Which of the following lacks proteins?

a) Pancreatic juice b) Saliva c) Bile d) Intestinal juice

84) Lactase is found in:

a) Saliva b) Pancreatic juice c) Bile d) Intestinal juice

85) In case of taking food rich in lime juice, the action of ptyalin on starch is:

a) Enhanced b) Reduced c) Unaffected d) Stopped

86) Human digestive juices lack:

a) Lactase b) Amylase

c) Cellulase d) Sucrose

87) The level of glucose in the blood is controlled by:

a) Ileum b) Gall bladder c) Liver d) Pancreas

88) Digestive enzymes are

a) Hydrolases b) Oxidoreductases c) Transferases d) Lygases

89) Bile secretion is proportional to concentration of:

a) Protein b) Fats c) Carbohydrates d) Vitamins

90) If a man eats boiled potatoes:

a) The starch in is indigestible b) The cellulose present is digested by cellulase

c) It has excess of fats digested by lipase d) It has DNA digested by nuclease

91) The factor which governs the absorption of digested food by intestinal villi is:

a) Peristalsis b) Osmosis c) Emulsification d) Selective absorption

92) In ileum of small intestine, which of the following is digested?

a) Vitamin K b) Monosaccharides c) Fat d) Bile salts

93) Most abundant organic compound on earth is:

a) Proteins b) Cellulose c) Lipids d) Steroids

94) Formation of glucose from protein is:

a) Gluconeogenesis b) Glycogenolysis

b) Glycogenesis d) Glycolysis

95) Maximum energy is available on complete oxidation of:

a) Glucose b) Fat b) Protein d) Organic acids

96) During digestion lymphatics of intestine become filled with fat globules giving white colour to the lymph which is called.

a) Bilirubin b) Chyle c) Chyme d) Cistron

97) Carbohydrate digestion first occurs in:

a) Mouth b) Intestine b) Stomach d) None of these

98) The hardest substance in our body is enamel because it contains

(a) High organic matter (b) high inorganic content

(c) High blood supply (d) high oxygen level

99). Number of teeth which are monophyodont in man is

(a) 4 (b) 12 (c) 22 (d) 32

100) Number of incisors, canines, premolars and molars in each jaw of man is

(a) 6,2,4,4 (b) 4,2,5,6 (c) 4,2,4,6 (d) 4,4,6,4

101) Wisdom teeth in human are

(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

102). Taking in food by an animal is called.

(a) Ingestion (b) egestion (c) absorption (d) assimilation

103) 'vomiting' is a reflex action controlled by

(a) Cerebellum (b) cerebrum (c) medulla (d) spinal cord

LEVEL-2

104) In man though both air and food go through the pharynx, food does not normally enter the wind pipe because during swallowing of food

(a) The epiglottis covers glottis (b) Cartilage of santorini closes the larynx

(c) Glottis covers the epiglottis (d) arytenoid covers the glottis.

105) The incisor tooth is meant for

(a) Biting and chewing (b) only chewing

(c) Crushing and grinding (d) only grinding

106) The main importance of villus is that it: (Orissa JEE 2010)

(a) Secretes enzymes (b) acts as nerve transmitter

(c) Absorbs only protein material (d) increases surface area for the absorption of digested food

107) The intestinal villi are more numerous and larger in posterior part of small intestine because:

a) Digestion is faster in posterior part b) blood supply is poorer in anterior part

c) Blood supply is poorer in posterior part d) there is more digested food in posterior part

108) Secretin and cholecystokinin are two hormones involved in digestion. They are secreted by:

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

109) Nutrients absorbed by the blood capillaries in intestinal villi first go into:

a) Aorta b) Posterior vena cava c) Hepatic portal vein d) Hepatic artery

110) An adolescent human below 17 years of age normally has dental formula as:

a) 2120/2120 b) 2122/2122 c) 2132/2132 d) 2232/2232

111) Argentaffin cells are found in:

a) Pancreas b) Intestine c) Gastric glands d) Liver

112) The epithelial cells lining the stomach of vertebrates is protected from the damage by HCL because:

(Manipal 2006)

(a) HCL is too dilute (b) HCL is neutralized by stomach

(c) The epithelial cells are resistant to the action of HCL

(d) The epithelial cells are covered by a mucous secretion

113) Which component of bile is not primarily secreted by hepatocytes?

(a)Bilirubin (b) Bile salts (c) Bicarbonate (d) Cholesterol

114) Which of the following is not a reducing sugar?

(a)Lactose (b) Sucrose (c) Maltose (d) Fructose

115) Which group contains biocatalysts?

(a)Erepsin, amylase, rennin (b)Rhodopsin, pepsin, steapsin

(c)Myosin, oxytocin, adrenaline (d) Glucose, amino acids, fatty acids

116) 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: (Karnataka CET 2006)

Starch	Lactose	Maltose	Sucrose
A	B	C	D

Galactose	Glucose	Fructose

(a)A=amylase,B=maltase,C=lactase,D=invertase

(b)A=amylase,B=maltase,C=invertase,D=lactase

(c)A=amylase,B=invertase,C=maltse,D=lactase

(d)A=amylase,B=lactase,C=maltase,D=invertase

117) Lacteals are found in:

a) Kidneys b) Intestinal villi c) Liver d) Lungs

118) Chylomicrons are:

a) Undigested proteins b) Undigested carbohydrates

c) Fat droplets coated with phospholipids d) Fats droplets coated with glycoproteins

119) Secretion of gastric juice is controlled by: (RPMT 2005; VMMC-Safdarjung 2007; WB-JEE 2010)

(a) gastrin (b)enterogastrin (c)cholecystokinin (d)none of the above

120) Excessive stimulation of vagus nerve in humans may lead to: (AIIMS 2003)

(a) Hoarse voice (b) peptic ulcers

(c) Efficient digestion of proteins (d) irregular contractions of diaphragm

121) A dental disease characterized by mottling of teeth is due to presence of a certain chemical element in drinking water. Which is that element? (BHU 2002)

(a)Boron (b) Chlorine (c) Fluorine (d) Mercury

122) Stool of a person contains whitish grey colour due to malfunction of which of the following organs?
(CBSE 2002)

(a) Liver (b) Spleen (c) Kidney (d) Pancreas

123) Excessive drinking of alcohol causes:

(a) Fibrosis (b) cirrhosis (c) jaundice (d) dermatitis

124) Water is largely absorbed in:

a) Colon b) Stomach c) Oesophagus d) Small intestine

125) Glycogen is stored in:

a) Liver b) Muscles c) Both of these d) Blood

126) Removal of stomach in man causes:

a) Dumping syndrome b) Turner's syndrome c) Emphysema d) Midget

127) Which enzyme digests peptides releasing amino acids one by one?

a) Pepsin b) Steapsin c) Peptidases d) Aminopeptidase

128) Pepsin acts in:

a) Basic medium b) Acidic medium c) Neutral medium d) All types of media

129) Marasmus is caused by:

a) Obesity b) Dwarfism c) Prolonged starvation d) Deficiency of vitamin

130) Which is incorrectly matched:

a) Rennin-Liver b) Ptyalin-Mouth c) Pepsin-Stomach d) Trypsin-Intestine

131) If the chyme of a person who had orally consumed starch as food is analyzed before it enters the duodenum, it will show the presence of:

a) Maltose and glucose b) Dextrin and maltose

c) Starch, dextrin and maltose d) Starch, dextrin and glucose

132) Function of gall bladder is:

a) Storage of bile b) Formation of enzymes c) Secretion of bile d) Formation of bile salts

133) Among energy values of nutrients, 9.3 calories is that of:

a) Fats b) Proteins c) Vitamins d) Carbohydrates

134) The first process in digestion and assimilation of fats is:

a) Emulsification b) Enzymatic action c) Absorption by lacteals d) Storage in adipose tissue

135) Continued consumption of diet rich in butter, red meat and eggs for a long period may lead it.

a) Vitamin A toxicity b) Kidney stones

c) Hypercholesterolemia d) Urine with ketonic bodies

136) Which of the following represent the bile salts?

a) Bilirubin and Biliverdin b) Sodium glycocholate

c) Hemoglobin d) Billirubin and Hemoglobin

137) Epithelial cells intestine involved in food absorption have on their surface:

a) Pinocytic vesicles b) Phagocytic vesiclesc) Zymogen granules d) Microvilli

138) Kwashiorkor is caused due to deficiency of

a) Calories b) Hormones c) Zwitterions d) Essential amino acids

139) Wisdom teeth are:

a) Last molars b) Last premolars c) Incisors d) Canines

140) Caloric value for carbohydrates, proteins and fats is:

a) 50 cal, 4.68 cal and 80 cal respectively b) 40 cal, 80 cal and 100 cal respectively

c) 4.1 Kcal, 5.65 Kcal and 9.45 Kcal respectively d) 5.6 Kcal, 100Kcal and 30Kcal respectively

MATCH THE FOLLOWING

141.

Match the terms in column A with suitable terms in column B:

Column A		Column B
i)	Pepsin	a) Fats
ii)	Bile salts	b) Casein
		c) Micelle
iii)	Lipase	d) Starch
iv)	Ptyalin	

a) i – b ii-c iii-a iv-b
b) i-c ii-a iii-d iv-b
c) i-b ii-c iii-b iv-a
d) i-c ii-d iii-a iv-b

+PAGE –

142) Study the following question choose the correct option

Glands	Location
A.Crypts of lieburkuhn	a.Loop of duodenum
B Pancreas	b.Stomach
C.Adrenal gland	c.Intestine
D.Gastric gland	d.Kidney

(a)A=a, B=d,C=c, D=a (b)A=a,B=c,C=d,D=b
(c)A=c,B=a,C=b,D=d (d)A=c,B=a,C=d,D=b

145)

Papillae	Shape
A.Vallate	1.mushroom shaped
B.Fungiform	2.Leaf shaped
C.Foliate.	3.Surrounded by a wall.
D.Filiform	4.Filament shaped

a)=4 B=2 C ==1 D= 3
(b) A=3 B= 1 C=2 D=4
(C) A=2 B=3 C=.1 D= 4
(d)A=3 B=2 C=4 D=1

146)

Description	teeth
A. Different types of teeth	1. diphyodont
B Found in the socket	2.Heterodont
C. Two sets of teeth	3.Thecodont
	4. monophyodont

(a) A=2,B=3,C=1
(b) A=I, B=3,C=2
(b) A=3 ,B=1,C=2
(c) A=4,B=3,C=2

147) Study the following question
choose the correct option

Column-1	Column-2
A.Goblet cells	1.Antibacterial agent
B.Lysozyme	2.Mucus
C.Saliva	3.HCl
D.Oxyntic cells	4.Sublingual gland

(a) A=1,B=1, C=4,D=2
(b)A=1,B=3, C=4, D=2
(c)A=2,B=3,C=1,D=4
d)A=2,B=1,C=4,D=3

148) Studt the following question choose the correct option

Type of teeth	Number
A.Premolars in lower jaw	1.Four
B.Molars in upper jaw	2.Eight
C.Incisors in both jaws	3.Two
D.Canines in upper jaw	4.Six

(a)A=3,(B)=2,C=1,D=4
(b)A=1,B=4,C=2,D=3
(c)A=1,B=3,C=2,D=4
(d) A=4,B=1,C=3,D=2

149) Study the following question choose the correct option

Structure	Description
A.stomach	1.Vestigeal organ
B.duodenum	2.heterocrine organ
C.vermiform appendix	3.U-shaped organ
DPanreas	4.J shaped organ

(a)A=3,B=4,C=2,D=1
(b)A=4,B=3, C=2,D=1
(c)A=4,B=3,C=1,D=2
(d) A=3,B=1, C=2 ,D=4.

150) Study the following question choose the correct option

Stucture	Associated with
A. epiploic appendages	1.Ileum
B.Payer's patches	2.larynx
C.Sacculus rotundus	3.colon
D.Glottis	4.small intestine

(a)A=3,B=4,C=1,D=2
(b)A=3,B=2,C=1,D=4.
(c)A=4,B=3, C=2,D=1
(d)A=4;B=3,C=1,D=2.

ASSERTION AND REASON QESTIONS

Instructions;

(a) If both (A) and (R) are true and (R) is the correct explanation of (A)

(b) If both (A) and (R) are true but (R) is not the correct explanation of (A)

(c) If (A) is true, but (R) is false

(d) If (A) and (R) are false.

151) (A) Thick layers of muscles are present in the wall of alimentary canal.

(R)Muscles help in mixing food with enzymes in the alimentary canal

152) (A) Polypeptidase acts on the peptide linkages and breaks them into smaller molecules and water molecules are necessary for this reaction.

(R)All digestive enzymes are hydrolases.

153) (A).Dentine is mesodermal in origin.

(R) Dentine is secreted by odontoblasts cells.

154) (A).Cardiac sphincter prevents regurgitation.

(R). It prevents reentry of food from small intestine to stomach.

155) (A).Pancreas and liver open into duodenum.

(R) Pancreas and liver lie between the two limbs of duodenum.

156) (A) Oesophagus is involved in deglutition.

(R)It lies in mediastenum

157) (A).Brunner's glands help in easy passage of food.

(R).Brunner's glands secrete mucus.

158) (A).The caecum is large and spacious in herbivore.

(R). In most herbivores cellulose digestion occurs in caecum.

159) (A).Lymph capillary of a villus is called a lacteal.

(R). Lymph vessel which carries fats is milky white in colour

160) (A).The main food digested in stomach is protein.

(R) Enzyme rennin is secreted in stomach.

161) (A) Enzyme pepsin is autocatalytic.

(R) There is no need for an activator ,to convert pepsinogen to pepsin.

162) (A) Bile has no enzymes.

(R). Bile does not have any role in digestion.

163) (A) Ileum has Payer's patches.

(R). Lymphocytes are produced by small intestine

164) (A).Bile helps in emulsification of fats.

(R). Bile has sodium bicarbonates.

165) (A): Gastric juice helps in absorption of B12

(R): Gastric juice contains Intrinsic factor of Castle

166) (A): Salivary glands, liver and pancreas are called accessory digestive glands

(R) They open by ducts into the alimentary canal

167) (A) Malnutrition involves under nutrition as well as over nutrition

(R) In both types there is deficiency of some vital ingredients of food

168) (A) An adult man has more number of teeth than a child

(R) Teeth in human beings are thecodont

169) (A) Most of gastrointestinal hormones are called local hormones

(R) They act upon the same part of gut which secretes them

170) (A) Passive absorption of food is a slow process

(R) It does not depend upon the energy

171. **Assertion (A):** In alcoholic drink the alcohol is converted into glucose in liver

Reason (R): Liver cells are able to produce glucose from alcohol by fermentation

172. **Assertion (A):** Peyer's patches are derivatives of lymphoid tissue

Reason (R): These are most numerous in the region of colon

173. **Assertion (A):** Retinene is a constituent of vitamin-A (Retinol)

Reason (R): Vitamin-A deficiency naturally causes deficiency of rhodopsin inducing night blindness (nyctalopia)

174. **Assertion (A):** The gall bladder is the chief place for bile storage

Reason (R): Bile is concentrated 50 times in gall bladder

Exercise-I

1. The layer of cells that secrete enamel of tooth is (JIPMER-2011)

   a. Dentoblast b. Ameloblast c. Osteoblast d. Odontoblast

2. Which of the following is mismatched (JIPMER-2011)

   a. Vitamin **k**-Beri-beri b. Vitamin D-Rickets

   c. Vitamin C-Scurvy d. Vitamin A-Xerophthalmia

3. Which of the following vitamin is water soluble as well as an antioxidant (JIPMER-2010)

   a. Vitamin B_1 b. Vitamin-A c. Vitamin – D d. Vitamin-C

4. Eustachian canal connects (JIPMER-2010)

   a. Middle ear with external ear b. Middle ear with internal ear

   c. External ear d. Pharynx with middle ear

5. The vitamin which is assential for blood clotting (JIPMER-2009)

   a. vitamin-A b. vitamin-B c. vitamin-C d. vitamin-K

6. Which vitamin should not be stored (JIPMER-2008)

   a. Calciferol b. Retinol c. Niacin d. Ascorbicacid

7. Secretion of pancreatic juice is stimulated by (JIPMER-2008)

   a. Gastrin b. Secretin c. Enterogastron d. Enterokinase

8. Which one is the sweetest sugar (JIPMER-2008)

   a. Glucose b. Fructose c. Sucrose d. Maltose

9. A patient is generally advised to specially consume more meat, lentils, milk and eggs in diet only when he suffers from (JIPMER-2007)

   a. Kwashiorkor b. Rickets c. Anemia d. Scurvy

10. Secretin and cholecystokinin are digestive hormones they are secreted in (JIPMER-2007)

    a. Oesophagus b. Ileum c. Duodenum d. Pyloric stomach

11. Digestion word means (JIPMER-2006)

a. Burning of food b. Oxidation of food c. Hydrolysis of food d. Breakdown of food

12. Maximum absorption of water occurs in (JIPMER-2006)

a. Colon b. Rectum c. Large intestine d. Small intestine

13. During starvation what will be sequence of ending of food stuffs (JIPMER-2006)

a. Carbohydrates – Fat – Protein b. Carbohydrates – Protein – Fat

c. Fat – Protein – Carbohydrate d. Fat – Carbohydrate – Protein

14. Secretion of gastric juice is stimulated by (JIPMER-2005)

a. Pepsin b. Gastrin c. Renin d. Secretin

15. Pepsin is inactivated at pH (JIPMER-2005)

a. Below 3 b. Below 2 c. Above 5 d. Above 3

16. Pellagra is caused by deficiency of vitamin (JIPMER-2005)

a. B_1 b. B_2 c. B_5 d. B_6

17. Disease caused by deficiency of protein in children is (JIPMER-2005)

a. Obesity b. Marasmus c. Diabetes d. Kwashiorkor

18. In the wall of alimentary canal, what is the actual sequence from outer to inner (JIPMER-2005)

a. Serosa, longitudinal muscle, mucosa, submucosa b. Mucosa, serosa, long, muscle

c. Serosa, long muscle, Circular submucosa, mucosa d. Serosa, long muscle, submucosa, mucosa

19. Bile helps in the digestion of fat through (JIPMER-2005)

a. Emulsification b. Alkalinity c. Forming micelles d. All of above

20. Which of the following represents the dental formula of man (JIPMER-2005)

a. $\frac{0.0.3.3}{3.1.3.3}$ b. $\frac{2.0.3.3}{1.0.2.3}$ c. $\frac{2.1.2.3}{2.1.2.3}$ d. $\frac{1.0.0.3}{1.0.0.3}$

21. The true stomach in ruminants where most of digestion takes place is (JIPMER-2004)

a. Rumen b. Omasum c. Reticulum d. Abomasum

22. Which of the following is both exocrine and endocrine gland (JIPMER-2004)

a. Liver b. Pancreas c. Thyroid d. Adrenal

23. Peyer's patches produce (JIPMER-2004)

a. Mucus b. Trypsin c. Lymphocytes d. Enterokinase

24. Protein deficiency disease is (JIPMER-2003)

a. Eczema b. Cirrhosis c. Kwashiorkor d. Night blindness

25. A secretion that digests both carbohydrates and proteins is (JIPMER-2003)

a. Ptyalin b. Pepsin c. Pancreatic juice d. Saliva

26. Food is moved along the alimentary canal by the contraction known as (JIPMER-2003)

a. Peristalsis b. Epiglottis c. Osmosis d. Cyclosis

27. Villi are present in the (JIPMER-2003)

a. Large intestine b. Small intestine c. Colon d. Stomach

28. Fatty acids are absorbed by the (JIPMER-2003)

a. Lacteals b. Pylorus c. Colon d. Capillaries

29. Hydrochloric acid in the stomach is secreted by some special type of cells called (JIPMER-2003)

a. Peptic cells b. Goblet cells c. Oxyntic cells d. Gastric cells

30. Enzyme and carbohydrates dominate in the digestive tract of (JIPMER-2003)

a. Carnivores b. Omnivores c. Parasites d. Herbivores

31. In horses, rabbits, hares the cellulose gets digested in the (JIPMER-2003)

a. Caecum b. Stomach c. Appendix d. Remen

32. The pylorous is the constricted part of the alimentary canal which is situated between (JIPMER-2003)

a. Stomach and duodenum b. Oesophagus and stomach

c Duodenum and Ileum d. Ileum and rectum

33. The intestinal juice, succus entericus is secreted by (JIPMER-2003)

a. Brunners gland b. Kupffer cells c. Crypts of Leiberkuhn d. Goblet cells

34. Below freezing point, the pepsin (JIPMER-2003)

a. Becomes over activated b. Gets destroyed

c. Remains unaffected d. Gets inactivated

35. Kupffer cells are found in (JIPMER-2001)

a. Blood b. Heart c. Kidney d. Liver

36. How man teeth of humans normally grow twice (JIPMER-2001)

a. 16 b. 32 c. 12 d. 20

37. Starch is converted to maltose by the action of (JIPMER-2001)

a. Maltase b. Sucrose c. Amylase d. Invertase

38. Richest source of vitamin 'C' is (JIPMER-2000)

a. Lemon b. Orange

c. Emblica officinalis (amla) d. Capsicum frutescens

39. Match the columns (AIIMS-2011)

Column-I **(Vitamin)**	Column-II **(Deficiency disease)**
A. B_1	I. Infertility
B. D	II. Scurvy
C. E	III. Beri-beri
D. C	IV. Bone deformity

Codes

	A	B	C	D
a.	III	IV	I	II
b.	I	II	III	IV
c.	IV	III	I	II
d.	II	IV	I	III

40. The pH of stomach is 1.6, then which enzyme will digest protein (AIIMS-2011)

a. Trypsin b. Pepsin c. Amylase d. Erypsin

41. Th pH of the digestive juices within the human small intestine is between 7.5 and 8.5. This environment is slightly (AIIMS-2009)

a. Basic b. Acidic c. Neutral d. None of these

42. Thiamine (B_1) deficiency results in (AIIMS-2009)

a. Wernicke's syndrome b. Korsakoff's syndrome

c. Osteonecrosis d. Tunnel vision

43. **Assertion (A):** Minerals are not biologically active substances (AIIMS-2009)

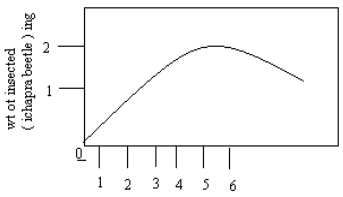
Reason (R): Some individuals suffer anemia due to deficiency of copper

1. A and R are correct, R is the correct explanation of A

2. A and R are correct but R is not the correct explanation of A

3. A is true, R is false 4. A is false, R is true

44. 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 the graph given in the table (AIIMS-2008)



The graphs 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 2ug /g diet is the optimum level

d. Growth of khapra beetle is inhibited when cholesterol concentration exceeds 2ug/g diet

45. Continued consumption of a diet rich in butter, red meat and eggs for a long period may lead to (AIIMS-2007)

a. Vitamin ‘A’ toxicity b. Kidney stones

c. Hypercholesterolemia d. Urine laden with ketone bodies

46. Which one of the following four secretions is correctly matched with its source, target and nature of action
(AIIMS-2005)

Secretion	Source	Target	Action
a. Gastrin	Stomach lining	Oxyntic cells	Production of HCl
b. Inhibin secretion of releasing	Sertoli cells	Hypothalamus	Inhibition of gonadotropin i hormone
c. Enterokinase	Duodenum	Gall bladder	Release of bile juice
d. Atrial natriuretic factor (ANF)	Sinuatrial node (SAN) m-cells of Atria	Juxta glomerular apparatus (JGA)	Inhibition of release of renin

47. Cattle fed with spoilt hay to sweet clover which contains dicumarol (AIIMS-2004)

a. Are healthier due to good diet b. Catch infections easily

c. May suffer vitamin K deficiency and prolonged bleeding

d. May suffer from beriberi due to deficiency of vitamin-B

48. Curding of milk in small intestine takes place due to (AIIMS-2002)

a. Rennin b. Trypsin c. Chymotrypsin d. Ptylase

49. Which of the following has minimum Ph (AIIMS-2002)

a. Bile b. Saliva c. Gastric juice d. Pancreatic juice

50. Which of following teeth are lophodont (AIIMS-2002)

a. Incisor and canine b. Premolar and molar c. Canine and premolar d. Premolar and incisor

51. Wharton's duct is the duct of (AIIMS-2002)

a. Parotid gland b. Sub mandibular salivary gland

c. Sub maxillary gland d. Pancreatic gland

52. Brunner's glands are present in (AIIMS-2001)

a. Duodenum b. Oesophagus c. Ileum d. Stomach

53. Toxic substances are detoxified in human body in (AIIMS-2001)

a. Kidney b. Lungs c. Liver d. Stomach

54. **Assertion (A):** Scurvy is caused by deficiency of (AIIMS-2001)

Reason (R): Deficiency of ascorbic acid causes scurvy

a. If both (A) and (R) are true and (R) is the correct explanation of (A)

b. If both (A) and (R) are true but (R) is not the correct explanation of (A)

c. If (A) is true, but (R) is false

d. If (A) and (R) are false

55. The name of vitamin – C is (AIIMS-2000)

a. Ascorbic acid b. Glutamic acid c. Aspartic acid d. Enolic acid

56. **Assertion (A):** Tongue is a gustatory receptor (AIIMS-2000)

Reason (R): Receptors for gustatory sensations are located in taste buds

a. If both (A) and (R) are true and (R) is the correct explanation of (A)

b. If both (A) and (R) are true but (R) is not the correct explanation of (A)

c. If (A) is true, but (R) is false

d. If (A) and (R) are false

KEY

ORAL CAVITY

1) c	2) c	3) c	4) d	5) c
6) b	7) d	8) d	9) a	10) d
11) b	12) b	13) c	14) a	15) c
16) d	17) b			

ALIMENTARY CANAL

18) b 19) d 20) a

21) b 22) b 23) a 24) a 25) d

26) d 27) d 28) a 29) d 30) d

31) b 32) c 33) c 34) b

DIGESTIVE GLANDS

35) a

36) b 37) c 38) d 39) b 40) b

41) d 42) a 43) d 44) d 45) a

46) a 47) a 48) a 49) a 50) a

51) c 52) c 53) d 54) d 55) a

56) c 57) b 58) a 59) d 60) a

PROCESS OF DIGESTION

61) c	62) c	63) a	64) c	65) b
66) d	67) c	68) c	69) c	70) c
71) a	72) c	73) d	74) d	75) b
76) a	77) b	78) b	79) d	80) d
81) d	82) b	83) d	84) b	85) b
86) c	87) c	88) a	89) b	90) c
91) a	92) c	93) b	94) a	95) b
96) b	97) a	98) b	99) b	100) c
101) a	102) a	103) c	104) c	105) b
106) d	107) d	108) c	109) c	110) b
111) c	112) d	113) a	114) d	115) a
116) d	117) b	118) d	119) a	120) b
121) c	122) a	123) b	124) a	125) c
126) d	127) d	128) b	129) c	130) a
131) c	132) a	133) a	134) a	135) c
136) b	137) d	138) d	139) a	140) c
141) a	142) d	143) b	144) c	145) b
146) a	147) d	148) b	149) c	150) a
151) a	152) a	153) a	154) c	155) c
156) b	157) a	158) a	159) a	160) b
161) c	162) c	163) a	164) a	165) a
166) a	167) c	168) b	169) a	170) a
171)b	172) c	173) a	174) c	

EXCERCISE-I

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