



## Chapter

# Digestion and Absorption

## MULTIPLE CHOICE QUESTIONS

### Human Physiology

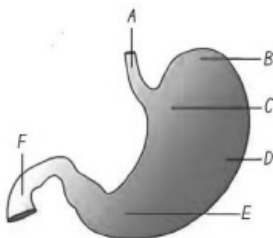
1. What increases the use of physico – chemical concepts and techniques?
  - (a) Forward approach
  - (b) Reductionist approach
  - (c) Both (a) and (b)
  - (d) None of these
2. Majority of the physico – chemical studies employed which of the following to study life forms?
  - (a) Tissue model
  - (b) Cell free system
  - (c) Both (a) and (b)
  - (d) None of these
3. Now a days it is realized that \_\_\_\_\_ would reveal the truth about biological processes or living phenomenon :-
  - (a) Purely organismic level
  - (b) Purely reductionistic molecular approach
  - (c) Both (a) and (b)
  - (d) None
4. All living phenomenon are emergent properties due to \_\_\_\_\_.
  - (a) Interaction among components of the system.
  - (b) Defoliation of organs.
  - (c) Exchange of gases only.
  - (d) All of these
5. How many of the following creates emergent properties of living organism?
  - i) Regulatory network of molecules
  - ii) Supra – molecular assemblies of cells; tissue; organs
  - iii) Population
  - iv) Communities
  - (a) Only two
  - (b) Only three
  - (c) Only one
  - (d) All of them
6. Which of the following components of our food are taken in small quantities?
  - (a) Carbohydrate and proteins
  - (b) Proteins and minerals
  - (c) Proteins and lipids
  - (d) Minerals and vitamins
7. Which of the following molecules can be used by us as a source of energy?
  - (a) Carbohydrates only
  - (b) Fats only
  - (c) Carbohydrates or fats
  - (d) Carbohydrates, fats and lipids
8. Digestion is –
  - (a) Absorption of diffusible food
  - (b) Absorption of water
  - (c) Throwing out of non-diffusible food substances
  - (d) Conversion of non-diffusible complex food substances into simple absorbable forms
9. Dental formula of adult person is-
  - (a) 2122/2122
  - (b) 2114/2114
  - (c) 2123/2123
  - (d) 2123/2124

Topic	Digestive System- (Alimentary Canal)
1	

10. Our teeth are –
  - (a) Acrodont and homodont
  - (b) Homodont and polyphyodont
  - (c) Thecodont, diphyodont and heterodont
  - (d) Acrodont, homodont and polyphyodont
11. Frenulum is –
  - (a) Adenoid present on pharyngeal wall
  - (b) Tonsils located on lateral wall of soft palate
  - (c) Fold attaching tongue to the floor of oral cavity
  - (d) V-shaped sulcus for terminalis on tongue
12. The hard chewing surface of teeth helping in mastication of food is called –
  - (a) Dentine
  - (b) Frenulum
  - (c) Root
  - (d) Enamel
13. The upper surface of the tongue has small projections, some of which bear taste buds. These projections are called-
  - (a) Papillae
  - (b) Taste pores
  - (c) Frenulum
  - (d) Sulcus terminalis
14. The common passage for food and air is–
  - (a) Gullet
  - (b) Glottis
  - (c) Larynx
  - (d) Pharynx
15. The oesophagus and trachea (wind pipe) open into-
  - (a) Gullet
  - (b) Glottis
  - (c) Larynx
  - (d) Pharynx
16. A thin long tube extending posteriorly and passing through neck, thorax and a diaphragm and leading to stomach is called-
  - (a) Pharynx
  - (b) Trachea
  - (c) Oesophagus
  - (d) Larynx
17. Our stomach is -
  - (a) U-shaped
  - (b) J-shaped
  - (c) C-shaped
  - (d) Rod-shaped
18. A muscular sphincter regulating opening of oesophagus into the stomach is called
  - (a) Pyloric sphincter
  - (b) Cardiac Sphincter
  - (c) Sphincter of Oddi
  - (d) Boyden sphincter
19. Cardiac sphincter is –
  - (a) Gastro-oesophageal sphincter
  - (b) Pyloric sphincter
  - (c) Gastro-duodenal sphincter
  - (d) None
20. The stomach is located in the upper \_\_\_\_ portion of the \_\_\_\_ cavity.
  - (a) Right, thoracic
  - (b) Left abdominal
  - (c) Right, abdominal
  - (d) Left, thoracic
21. The narrow distal part of stomach leading to the intestine is called –
  - (a) Cardiac
  - (b) Pyloric
  - (c) Fundus
  - (d) None
22. The proximal part of stomach in which oesophagus opens is called -
  - (a) Cardiac
  - (b) Pyloric
  - (c) Fundus
  - (d) None
23. Which of the following is not the part of stomach?
  - (a) Caecum
  - (b) Pyloric
  - (c) Fundus
  - (d) Cardiac
24. Small intestine is distinguishable into 3 parts, a ‘C’ shaped \_\_\_\_\_, a long coiled middle portion \_\_\_\_\_ and a highly coiled \_\_\_\_\_.
  - (a) Ileum, jejunum, duodenum
  - (b) jejunum, Duodenum, ileum
  - (c) Duodenum, jejunum, ileum
  - (d) Caecum, duodenum, ileum
25. The opening of stomach into duodenum is guarded by-
  - (a) Cardiac sphincter
  - (b) Sphincter of Boyden
  - (c) Sphincter of Oddi
  - (d) Pyloric sphincter

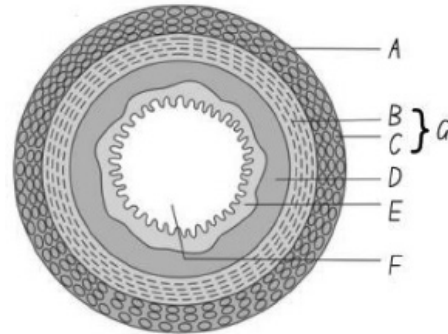
26. Ileum is –  
 (a) First part of small intestine  
 (b) Last part of small intestine  
 (c) Middle part of small intestine  
 (d) First part of large intestine
27. Which of the following parts of small intestine opens into large intestine?  
 (a) Duodenum (b) Ileum  
 (c) Jejunum (d) Colon
28. All of the following are the part of large intestine except -  
 (a) Ileum (b) Caecum  
 (c) Colon (d) Rectum
29. Caecum is small blind sac which hosts some symbiotic micro-organisms. From it a small finger like vestigial organ arises. This organ is called -  
 (a) Parotid gland  
 (b) Vermis  
 (c) Vermiform appendix  
 (d) Lacteals
30. Caecum opens into -  
 (a) Rectum (b) Duodenum  
 (c) Colon (d) Jejunum
31. Which of the following organs has 3 parts (ascending, transverse and descending parts)?  
 (a) Colon (b) Caecum  
 (c) Small intestine (d) Large intestine
32. Which of the following sequence is correct?  
 (a) Descending part of colon → Rectum → Anus  
 (b) Stomach → Jejunum → Duodenum  
 (c) Ileum → Colon → Caecum  
 (d) Colon → Anus → Rectum

33.



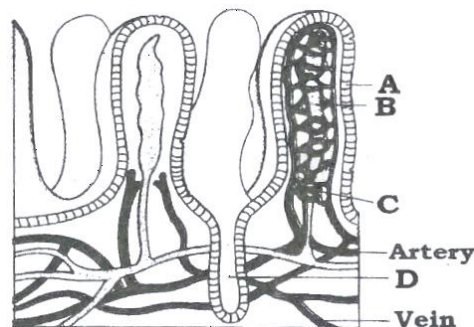
Anatomical regions of stomach are-

- (a) B- Fundus, C- Cardiac, D- Body, E-Pyloric  
 (b) B- Cardiac, C- Fundus, D- Body, E-Pyloric  
 (c) B- Fundus, C- Cardiac, D- Pyloric, E-Body  
 (d) B- Fundus, C- Body, D- Cardiac, E-Pyloric
34. The wall of alimentary canal from oesophagus to rectum possesses four layers. The sequence of these layers is –  
 (a) Serosa-Mucosa-Submucosa- Muscularis  
 (b) Muscularis-Serosa-Mucosa- Sub-mucosa  
 (c) Serosa-Muscularis-Mucosa- Sub-mucosa  
 (d) Serosa-Muscularis-Submucosa- Mucosa
35. The below diagram represents the T.S. of Gut. Identify A, G, D and E –



- (a) A- Serosa; G - Muscularis; D - Sub-mucosa; E – Mucosa  
 (b) A- Muscularis; G - Serosa; D - Sub-mucosa; E – Mucosa  
 (c) A- Serosa; G - Muscularis; D - Mucosa; E – Sub-mucosa  
 (d) A- Serosa; G - Sub-mucosa; D - Muscularis; E – Mucosa
36. Epiglottis is a cartilaginous flap which prevents the entry of food into –  
 (a) Glottis (b) Gullet  
 (c) Oesophagus (d) None of the above
37. Duodenal glands/Brunner's glands are present in -  
 (a) Sub-mucosa (b) Mucosa  
 (c) Muscularis (d) Serosa
38. Mucosa forms irregular folds (rugae) in the-  
 (a) Ileum (b) Stomach  
 (c) Jejunum (d) Colon

39. Mucosa forms many small finger-like villi in the -  
 (a) Stomach (b) Colon  
 (c) Caecum (d) Small intestine
40. The many projections on the wall of small intestine function to -  
 (a) Secrete digestion enzymes  
 (b) Increase the surface area  
 (c) Hold products of digestion so they do not enter the large intestine  
 (d) Hold mucus, so ulcers do not form
41. Which layer of the gut is responsible for peristalsis?  
 (a) Smooth muscles (b) Mucosa  
 (c) Sub-mucosa (d) Serosa
42. Which of the following statement is false?  
 (a) Mucosal epithelium has goblet cells which secrete mucus for lubrication  
 (b) Mucosa forms gastric glands in the stomach and crypts in between the bases of villi in intestine  
 (c) Cells lining the villi have brush border or microvilli  
 (d) All the four basic layer in the wall of gut never show modification in different parts of the alimentary canal
43. Lacteals, and a network of capillaries capillaries are found in-  
 (a) Spleen (b) Intestinal villi  
 (c) Salivary gland (d) Mammary gland
44. Intestinal villi are supplied with -  
 (a) Only blood capillaries  
 (b) Only lacteals  
 (c) Lacteals and valves  
 (d) Blood capillaries and lacteals
45. The below diagram represents a section of small intestinal mucosa showing villi. Identify A, B, C and D -



- (a) A- Villi, B - Lacteal, C - Capillaries, D - Crypts  
 (b) A- Lacteal, B - Villi, C - Capillaries, D - Crypts  
 (c) A- Villi, B - Lacteal, C - Crypts, D - Capillaries  
 (d) A- Crypts, B - Lacteal, C - Capillaries, D - Villi

Topic 2	Digestive System- (Digestive Glands)
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46. Number of salivary glands present in human being is -  
 (a) 5 pairs (b) 3 pairs  
 (c) 4 pairs (d) 2 pairs
47. Parotid glands are located below -  
 (a) Eye (b) Tongue  
 (c) Floor of mouth (d) In cheek near ear
48. Which of the following salivary gland is absent in human beings?  
 (a) Zygomatic  
 (b) Parotids  
 (c) The sub-maxillary/sub-mandibular (lower jaw)  
 (d) The sub-linguals (below the tongue)
49. Saliva is secreted by -  
 (a) Liver  
 (b) Gastric gland  
 (c) Duodenal gland  
 (d) None

50. Which one is the largest gland?  
 (a) Liver (b) Pancreas  
 (c) Salivary gland (d) Gastric gland
51. Liver secretes  
 (a) No digestive enzymes  
 (b) Many digestive enzymes  
 (c) Hormones  
 (d) Succus entericus
52. Liver of man is -  
 (a) Bilobed (b) 3-lobed  
 (c) 4-lobed (d) 5-lobed
53. Digestive juice lacking enzyme but aiding digestion is -  
 (a) Chyle (b) Chyme  
 (c) Bile (d) Succus entericus
54. In adult, human liver weighs -  
 (a) 2 kg (b) 2-3 kg  
 (c) 500 g (d) 1.2 to 1.5 kg
55. Liver is situated in -  
 (a) Thoracic cavity  
 (b) Above the thoracic cavity  
 (c) In abdominal cavity below diaphragm  
 (d) In abdominal cavity above diaphragm
56. Which of the following is the structural and functional unit of liver?  
 (a) Hepatic cells (b) Hepatic cord  
 (c) Hepatic lobule (d) Hepatic lobe

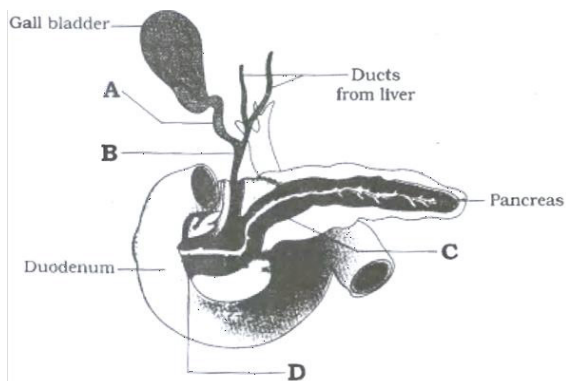
57. Find out the correct match –

	Column I		Column II
A	Hepatic lobule	I	Base of villi
B	Crypts of Leiberkuhn	II	Glisson's capsule
C	Sphincter of Oddi	III	Gall bladder
D	Cystic duct	IV	Hepato- pancreatic duct

- (a) A-II, B-I, C- IV, D-III  
 (b) A-I, B-II, C- IV, D-III  
 (c) A-I, B-II, C-III, D- IV  
 (d) A - IV, B-III, C-II, D-I

58. Hepatocytes secrete -  
 (a) Lipase  
 (b) Bile, no digestive enzymes  
 (c) Bile with digestive enzymes  
 (d) Amylopsin
59. Bile is produced by -  
 (a) Gall bladder (b) Liver  
 (c) Hepatic duct (d) Blood
60. Cystic duct arises from -  
 (a) Liver (b) Kidney  
 (c) Pancreas (d) Gall bladder
61. Function of gall bladder is –  
 (a) Storage of bile  
 (b) Secretion of bile  
 (c) Formation of digestive enzyme  
 (d) Formation of bile salts
62. Common bile duct is formed when  
 (a) Right and left hepatic ducts are fused  
 (b) Bile duct is fused with pancreatic duct  
 (c) Cystic duct is fused with right hepatic duct.  
 (d) Cystic duct (duct of gall bladder) is fused with a common hepatic duct
63. In human beings, which of the following opens into the duodenum?  
 (a) Hepatic duct and pancreatic duct separately  
 (b) Hepato-pancreatic duct  
 (c) 1st hepatic duct, then pancreatic duct  
 (d) 1st pancreatic duct then hepatic duct
64. Which of the following is incorrect about pancreas?  
 (a) It is compound gland as it has both exocrine and endocrine part  
 (b) Exocrine part secretes alkaline pancreatic juice having enzymes  
 (c) Endocrine part secretes hormones like insulin and glucagon  
 (d) It is surrounded by Glisson's capsule
65. The below diagram is a duct system of liver, gall bladder and pancreas. Write the names of ducts from A to D.





- (a) Cystic duct, B - Bile duct, C - Pancreatic duct, D - Hepato-pancreatic duct  
 (b) A- Bile duct, B - Cystic duct, C - Pancreatic duct, D - Hepato-pancreatic duct  
 (c) A- Cystic duct, B - Bile duct, C - Hepato-pancreatic duct, D - Pancreatic duct.  
 (d) A- Cystic duct, B - Pancreatic duct, C - Bile duct, D - Hepato-pancreatic duct

### Topic 3

### Digestion of Food

66. The process of digestion is accomplished by:-  
 (a) Mechanical process  
 (b) Chemical process  
 (c) Both (a) and (b)  
 (d) Chemical & Electrical
67. Mastication of food & facilitation of swallowing is the two major function of:-  
 (a) Teeth (b) Buccal Cavity  
 (c) Mouth (d) Trachea
68. \_\_\_\_\_(i)\_\_\_\_\_ in saliva helps in \_\_\_\_\_(ii)\_\_\_\_\_ & \_\_\_\_\_(iii)\_\_\_\_\_ the masticated food:-  
 (a) (i) Mucus (ii) Lubricating (iii) Adhering  
 (b) (i) Adhering (ii) Cohesion (iii) Surface tension  
 (c) (i) Surface tension (ii) Cohesion (iii) Adhesion  
 (d) (i) Lubrication (ii) Mucus (iii) Adhering
69. The bolus is conveyed into the pharynx and then into the \_\_\_\_\_(i)\_\_\_\_\_ by \_\_\_\_\_(ii)\_\_\_\_\_  
 (a) (i) Swallowing (ii) Deglutition

- (b) (i) Deglutition (ii) Swallowing  
 (c) (i) Oesophagus (ii) Deglutition  
 (d) (i) Oesophagus (ii) Mastication

70. The muscular contraction in oesophagus is known as:-  
 (a) Swallowing (b) Peristalsis  
 (c) Churning (d) Both (b) & (c)
71. What controls the passage of food into the stomach?  
 (a) Gastro – oesophageal sphincter  
 (b) Pyloric sphincter  
 (c) Mucus in saliva  
 (d) All of the above
72. The saliva secreted into the oral cavity contains:-  
 \* Water; Amylase; Ptyalin;  
 Lysozymes;  $\text{Na}^+$ ;  $\text{K}^+$ ;  $\text{Cl}^-$ ;  $\text{HCO}_3^-$
- How many of the above are composition of saliva?  
 (a) Only 6 (b) Only 7  
 (c) Only 8 (d) Only 5
73. Which enzyme is responsible for initiation of digestion in the oral cavity:-  
 (a) Water splitting complex  
 (b) Mucus splitting enzyme  
 (c) Carbohydrate splitting enzyme  
 (d) Protein splitting enzyme
74. What percentage of starch is hydrolysed in oral cavity?  
 (a) 20% (b) 30%  
 (c) 40% (d) 50%
75. In oral cavity starch is hydrolysed into \_\_\_\_\_  
 (i)\_\_\_\_\_ (ii)\_\_\_\_\_  
 (a) a monosaccharide; Maltose  
 (b) a disaccharide; Maltose  
 (c) a disaccharide; Galactose  
 (d) none of the above
76. Optimum pH required for the activation of carbohydrate – splitting enzyme is :-  
 (a) 5.8 (b) 6.8  
 (c) 7.8 (d) 4.8

77. Antibacterial agent present in saliva; that protects from bacterial infection is:-  
 (a) Ptyalin (b) Amylase  
 (c) Lysozymes (d) Both
78. What major types of cells does the gastric gland contains?  
 (a) Mucus neck cells  
 (b) Peptic or chief cells  
 (c) Parietal oxyntic cells  
 (d) All of the above
79. Factor essential for absorption of vitamin B<sub>12</sub> is secreted by \_\_\_\_\_(i)\_\_\_\_\_ & the factor is \_\_\_\_\_(ii)\_\_\_\_\_  
 (a) (i) peptic cells (ii) Lysozyme  
 (b) (i) intrinsic (ii) peptic cells  
 (c) (i) oxyntic (ii) intrinsic  
 (d) (i) parietal cells (ii) HCl
80. How many of the following statements are correct:-  
 (i) Proenzyme (Pepsinogen) is secreted by chief cells  
 (ii) Stomach stores food for 4 – 5 hours  
 (iii) Food thoroughly mixed up with acidic gastric juice is known as chyme.  
 (a) Only one (b) Only two  
 (c) All of them (d) None of them
81. Pepsinogen on the exposure to \_\_\_\_\_(i)\_\_\_\_\_ is converted into the active enzyme \_\_\_\_\_(ii)\_\_\_\_\_  
 (a) (i) Proenzyme (ii) Lysozyme  
 (b) (i) HCl (ii) Pepsin  
 (c) (i) Lysozyme (ii) HCl  
 (d) (i) Churning (ii) Pepsin
82. Pepsin converts \_\_\_\_\_(i)\_\_\_\_\_ into \_\_\_\_\_(ii)\_\_\_\_\_ & \_\_\_\_\_(iii)\_\_\_\_\_  
 (a) Proteins; Proteoses; Peptones  
 (b) Proteoses; Peptones; Proteins  
 (c) Peptones; Proteins; Proteoses  
 (d) Peptones; Proteoses; Proteins
83. What prevent the gastric epithelium from excoriation by the highly concentrated hydrochloric acid?  
 (a) Mucus & Bicarbonates  
 (b) Bicarbonates only  
 (c) Mucus only  
 (d) HCl
84. The acidity in stomach for activation of pepsinogen required is  
 (a) 1.8 (b) 3.8  
 (c) 6.8 (d) 7.8
85. The proteolytic enzyme found in the milk for infants is:-  
 (a) Pepsin (b) Lectin  
 (c) Rennin (d) None of these
86. Lipases are also secreted by gastric glands in:-  
 (a) Small amount (b) Moderate amount  
 (c) Large amount (d) None of the above
87. \_\_\_\_\_ of movements are generated by the muscularis layer of the small intestine.  
 (a) Certain type  
 (b) Various type  
 (c) Churning type  
 (d) None of the above
88. How many of the following secretion (s) is released into the small intestine?  
 (i) Bile juice  
 (ii) Gastric juice  
 (iii) Pancreatic juice  
 (iv) Intestinal juice  
 (a) Only One (b) Only Two  
 (c) Only Three (d) Only Four
89. Which of the following guards the release of pancreatic and bile juice into duodenum?  
 (a) pyloric sphincter  
 (b) Hepato – pancreatic duct  
 (c) Sphincter of Oddi  
 (d) duct of Santorini
90. The contents of Pancreatic juice are:-  
 \* Trypsinogen; Chymotrypsinogen;  
 Pepsinogen; Pro – carboxypeptidases;  
 amylases; Lipases; nucleases  
 (a) All seven of the above

- (b) Only five of the above  
(c) Only six of the above  
(d) Only four of the above
- 91.** What are inactive enzymes of Pancreatic juice?  
Trypsinogen; Chymotrypsinogen;  
Pepsinogen; Pro – carboxypeptidase;  
amylases; Lipases; nucleases  
(a) All seven of the above  
(b) Only five of the above  
(c) Only three of the above  
(d) Only four of the above
- 92.** What activates the enzymes of pancreas?  
(a) Enterokinase & Pepsin  
(b) Enterokinase & Trypsin  
(c) Enterokinase & HCl  
(d) Chymotrypsin & Enterokinase
- 93.** Bile released into duodenum contains the -  
(a) Bile salt (b) Bile pigment  
(c) Both (a) and (b) (d) Goblet cells
- 94.** Intestinal mucosa secretes:-  
(a) Lysozyme (b) Enterokinase  
(c) Mucus (d) Both (b) & (c)
- 95.** The composition of bile salts is-  
(a) Bilirubin & Biliverdin  
(b) Bicarbonates & Cholesterol  
(c) Phospholipids  
(d) None of the them
- 96.** The breaking down of fats into very small micelles is known as-  
(a) Digestion (b) Pyrolysis  
(c) Emulsification (d) Absorption
- 97.** The goblet cells of intestinal mucosal epithelium secretes-  
(a) Enterokinase (b) Mucus  
(c) Lipase (d) All of the above
- 98.** Succus entericus contains-  
(i) Disaccharide & Lipase  
(ii) Dipeptidase & Nucleosidase  
(iii) Mucus
- (a) Only (i) & (ii) (b) All  
(c) Only (ii) & (iii) (d) None
- 99.** What is the pH of intestinal juice?  
(a) 7.0 (b) 7.8  
(c) 6.0 (d) 6.8
- 100.** Succus entericus is the combination of secretion of-  
(a) Mucus cells  
(b) Brush bordered cells  
(c) Both (a) and (b)  
(d) None
- 101.** Which provides alkaline medium for enzymatic activities?  
(a) Mucus (b) Bicarbonates  
(c) Both (d) None
- 102.** Brunner's glands helps in-  
(a) Secretion of HCl  
(b) Providing an neutral medium  
(c) Providing an alkaline medium  
(d) Secretion of proteoses
- 103.** Which of the following is partially hydrolysed protein?  
(a) Proteoses (b) Peptones  
(c) Chyme (d) All
- 104.** Which of the following statement is incorrect?  
(a) Carbohydrates in chyme is hydrolysed by salivary amylase.  
(b) Fats are broken down by lipases.  
(c) Bile helps in the break down process of fats  
(d) None of the above
- 105.** Which of the following is correct?  
(a) Final steps of digestion occur very close to the mucosal epithelium of the intestine  
(b) Nucleic acids in pancreatic juice acts on nucleases to form nucleotides & Nucleosides  
(c) Succus entericus acts on the start products of chyme  
(d) All
- 106.** Which of the following reaction in duodenal region?



- (a) Lactose  $\xrightarrow{\text{Lactase}}$  Glucose + Galactose  
 (b) Nucleic acids  $\xrightarrow{\text{Nucleases}}$  Nucleotides  
 (c) Starch  $\xrightarrow{\text{amylase}}$  Disaccharides  
 (d) All

**107.** The undigested and unabsorbed substances are passed on to-

- (a) Jejunum (b) Ileum  
 (c) Caecum (d) Duodenum

**108.** Which of the following statements is incorrect:-

- (a) No digestion occurs in the large intestine  
 (b) In large intestine absorption of water; minerals & certain drugs occurs.  
 (c) Mucus in the large intestine helps in adhesion of undigested particles  
 (d) None of the above

**109.** The undigested, unabsorbed substances are called:-

- (a) Chyme (b) Faeces  
 (c) Bolus (d) Gullet

**110.** The entry of food into the caecum from ileum is prevented by:-

- (a) Pyloric sphincter  
 (b) Sphincter of Oddi  
 (c) Ileo – caecal valve  
 (d) None

**111.** Which is the temporary storage region for faeces?

- (a) Ileum (b) Caecum  
 (c) Colon (d) Rectum

**112.** Which of the following statements is incorrect?

- (a) The activity of GIT are under neural and hormonal control for proper coordination of different part.  
 (b) The sight, smell and presence of food in oral cavity can stimulate secretion of saliva.  
 (c) Gastric and intestinal secretions are stimulated by neural signals.  
 (d) None of the above

**113.** Muscular activity of different part of the alimentary canal can be moderated by:-

- (a) Local mechanism (b) CNS  
 (c) Both (a) and (b) (d) PNS

**114.** Hormonal control of secretion of digestive juices is carried out by local hormones produced by

- (a) Gastric mucosa  
 (b) Intestinal mucosa  
 (c) Intestinal submucosa  
 (d) Both (a) & (b)

**115.** Which of the following is correct match?

Substrate		GCV	PCV
A)	Carbohydrate	4.0	4.21
B)	Protein	4.0	5.65
C)	Fat	9.45	9.0
D)	All		

- Ⓐ All the values are in k cal / gm  
 Ⓑ PCV \* Physiological calorific value  
 Ⓒ GCV \* Gross calorific value

## Topic 4

## Absorption Of Digested Products

**116.** Absorption occurs through -

- (a) Passive transport  
 (b) Active transport  
 (c) Facilitated method  
 (d) All

**117.** Absorption of glucose, amino acids & some electrolytes like chloride ions occurs through simple diffusion in \_\_\_\_\_

- (a) Small amount  
 (b) Moderate amount  
 (c) Large amount  
 (d) None

**118.** Which of the following is true?

- (a) Passage of substances into blood stream depends upon the concentration gradient.  
 (b) Glucose and amino acids are absorbed facilitatively  
 (c) Transport of water depends upon osmotic gradient  
 (d) All of the above

- 119.** Which of the following is true?  
 (a) Fat droplets → Micelle → Chylomicron  
 (b) Fat droplet (Lumen) → Micelle (Mucosa) → Chylomicron (Lacteal)  
 (c) Fat droplet (Mucosa) → Micelle (Sub – mucosa) → Chylomicron (Lacteal)  
 (d) None of them
- 120.** Principle organ for absorption of nutrients is:-  
 (a) Mouth (b) Stomach  
 (c) Small Intestine (d) Large Intestine
- 121.** The absorbed substances finally reach the tissues which utilise them for their activities. This process is its known as:-  
 (a) Assimilation (b) Absorption  
 (c) Deglutition (d) Defecation

<b>Topic</b>	<b>Disorders of Digestive system</b>
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- 122.** Which is the ejection of intestinal content through the mouth?

- (a) Jaundice (b) Diarrhoea  
 (c) Vomiting (d) None

- 123.** Irregular bowel movement causes:-

- (a) Jaundice (b) Vomiting  
 (c) Constipation (d) Indigestion

- 124.** Dietary deficiency of proteins and total food calories are wide spread in

- (a) North & North – east Asia  
 (b) South America & Central Africa  
 (c) East & South – east Asia  
 (d) North America & Central Africa

- 125.** Marasmus occurs in:-

- (a) Children more than a year in age  
 (b) Infant more than a year in age  
 (c) Foetus  
 (d) Infant less than a year in age

- 126.** Kwashiorkar occurs in

- (a) Children more than a year in age  
 (b) Infant more than a year in age  
 (c) Foetus  
 (d) Infant less than a year in age

### ANSWER KEY

- |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1. (b)   | 2. (b)   | 3. (b)   | 4. (a)   | 5. (d)   | 6. (d)   | 7. (d)   | 8. (d)   | 9. (c)   | 10. (c)  |
| 11. (c)  | 12. (d)  | 13. (a)  | 14. (d)  | 15. (d)  | 16. (c)  | 17. (b)  | 18. (b)  | 19. (a)  | 20. (b)  |
| 21. (b)  | 22. (a)  | 23. (a)  | 24. (c)  | 25. (d)  | 26. (b)  | 27. (b)  | 28. (a)  | 29. (c)  | 30. (c)  |
| 31. (a)  | 32. (a)  | 33. (a)  | 34. (d)  | 35. (a)  | 36. (a)  | 37. (a)  | 38. (b)  | 39. (d)  | 40. (b)  |
| 41. (a)  | 42. (d)  | 43. (b)  | 44. (d)  | 45. (a)  | 46. (b)  | 47. (d)  | 48. (a)  | 49. (d)  | 50. (a)  |
| 51. (a)  | 52. (a)  | 53. (c)  | 54. (d)  | 55. (c)  | 56. (c)  | 57. (a)  | 58. (b)  | 59. (b)  | 60. (d)  |
| 61. (a)  | 62. (d)  | 63. (b)  | 64. (d)  | 65. (a)  | 66. (c)  | 67. (b)  | 68. (a)  | 69. (c)  | 70. (b)  |
| 71. (a)  | 72. (b)  | 73. (c)  | 74. (b)  | 75. (b)  | 76. (b)  | 77. (c)  | 78. (d)  | 79. (c)  | 80. (c)  |
| 81. (b)  | 82. (a)  | 83. (a)  | 84. (a)  | 85. (c)  | 86. (a)  | 87. (b)  | 88. (c)  | 89. (c)  | 90. (c)  |
| 91. (c)  | 92. (b)  | 93. (c)  | 94. (d)  | 95. (d)  | 96. (c)  | 97. (b)  | 98. (b)  | 99. (b)  | 100. (c) |
| 101. (b) | 102. (c) | 103. (d) | 104. (a) | 105. (a) | 106. (d) | 107. (c) | 108. (d) | 109. (b) | 110. (c) |
| 111. (d) | 112. (d) | 113. (c) | 114. (d) | 115. (c) | 116. (d) | 117. (a) | 118. (d) | 119. (a) | 120. (c) |
| 121. (a) | 122. (c) | 123. (c) | 124. (b) | 125. (d) | 126. (a) |          |          |          |          |