

Objective

1. taking in of complex food.
 (A) Egestion (B) Ingestion (C) Digestion (D) None of these
2. Embedded in the tentacles are numerous stinging cells called:
 (A) Gastrovascular cavity (B) Mematocyst (C) Coelenteror (D) None of these
3. In planaria each of these main branches of intestine give off numerous small branches which end blindly called:
 (A) Crop (B) Rectun (C) None of these (D) Caecae
4. The is a short narrow tube called mesenteron stomach.
 (A) Fore gut (B) None of these
 (C) Hind gut (D) Mid gut
5. Organisms that live upon or within another organism are called:
 (A) Hosts (B) Pests (C) Predators (D) Parasites
6. Which of the following is a parasitic plant?
 (A) Sarracenia (B) Cuscuta (C) Dionea (D) Drosera
7. Lichen is a symbiotic relationship between an alga and:
 (A) Pteridophyte (B) Angiosperm roots (C) Gymnosperm (D) Fungus
8. Root nodules are present in:
 (A) Gymnosperms (B) Non - leguminous plants
 (C) All photosynthetic plants (D) Leguminous plant
9. Mycorrhizal fungus provides plants minerals such as:
 (A) Potassium (B) Phosphorus (C) Calcium (D) Magnesium
10. All of the insectivorous plants are:
 (A) Parasitic (B) Saprotrophs (C) Autotrophs (D) Heterotrophs
11. One of the following is not insectivorous plant:
 (A) Venus - fly trap (B) Cuscuta (C) Pitcher plant (D) Sundew
12. The scientific name of Venus - fly trap is:
 (A) Puccinia graminis (B) Drosera intermedia
 (C) Saracenia pupurea (D) Dionaea muscipula
13. Drosera is the scientific name of:
 (A) Venus flytrap (B) Sundew (C) Pitcher plant (D) None of these
14. pH of fresh saliva of human is about:
 (A) 6 (B) 7 (C) 8 (D) 9
15. Mucus in saliva is made of:
 (A) Saturated fatty acids (B) Glycoprotein (C) Phospholipids (D) Glycolipid

16. The structure in mouth that prevents food from entering nasal cavities is the:
 (A) Epiglottis (B) Tongue
 (C) Soft palate (D) Pharynx
17. The food is prevented to enter the wind pipe through the courtesy of:
 (A) Glottis (B) Larynx (C) Epiglottis (D) Pharynx
18. Which of the following is not salivary gland:
 (A) Parotid glands (B) Submaxillary glands
 (C) Sublingual glands (D) Gastric glands
19. Which of the following is an enzyme of saliva:
 (A) Lipase (B) Ptyalin (C) Enterokinase (D) Pepsin
20. Which of the following gland is not associated with the human digestive system:
 (A) Salivary gland (B) Liver (C) Spleen (D) Pancereas
21. The opening of the windpipe is called:
 (A) Bolus (B) Epiglottis
 (C) Glothis (D) None of these
22. characteristic movements of the digestive tract.
 (A) Bolus (B) Anti - pari stalsis (C) None of these (D) Peristalsis
23. Hunger pangs usually beginhours after the previous meal or in less time for some People:
 (A) 8 - 12 (B) 12 - 24 (C) 8 - 10 (D) 12 - 18
24. Pepsin is secreted by:
 (A) Zymogen cell (B) Mucus cell (C) Oxyntic cell (D) Parietal cell
25. The human stomach is situated below the:
 (A) Spleen (B) Liver (C) Diaphragm (D) Kidneys
26. Parietal cell of linings of human stomach secrete:
 (A) Gastrin (B) Pepsinogen (C) Hydrochloric acid (D) Mucus
27. Muscles of stomach are of which type:
 (A) Voluntary (B) Skeletal (C) Cardiac (D) Smooth
28. In human stomach HCl is secreted by:
 (A) Zymogen cells (B) Chief cells
 (C) Oxyntic / parietal cells (D) Mucous cells
29. Cardiac sphincter is present at the junction of:
 (A) Heart and oesophagus (B) Jejunum and ileum
 (C) Oesophagus and stomach (D) Oesophagus and duodenum
30. Heart burn is due to back flash of acidic chyme into:
 (A) Oral cavity (B) Stomach (C) Oesophagus (D) Heart
31. HCl adjusts the pH of stomach content to a range of:
 (A) 2 - 5 (B) 2 - 3 (C) 3 - 4 (D) 1 - 3
32. Gastric glands are composed of:

33. The carbohydrate digesting enzyme in pancreatic juice is:
(A) Trypsin (B) Erypsin (C) Amylase (D) Lipase
34. Enzyme that produces amino acids:
(A) Trypsin (B) Erypsin (C) Amino peptidase (D) Chymotrypsin
35. The first part of small intestine is called:
(A) Jejunum (B) Ileum (C) Duodenum (D) Rectum
36. Hepatic and pancreatic secretions in man are stimulated by:
(A) Adrenaline (B) Secretin (C) ADH (D) Gastrin
37. The length of Jejunum is about:
(A) 2 m (B) 2.4 m (C) 1.4 m (D) 2.8 m
38. Dipeptides are broken down into amino acid by:
(A) Pepsin (B) Lipase (C) Erypsin (D) Trypsin
39. Emulsification is the function of:
(A) Protease (B) Bile (C) Lipase (D) Amylase
40. Gall stones are produced due to:
(A) Protein (B) Glucose (C) Cholesterol (D) Milk
41. Accumulation of bile in blood causes the condition called:
(A) Piles (B) Ulcer (C) Jaundice (D) Constipation
42. The length of duodenum of human is about:
(A) 10 - 35 cm (B) 25 - 40 cm (C) 20 - 25 cm (D) 10 - 15 cm
43. Stomach empties into duodenum through:
(A) Ileocolic sphincter (B) Anal sphincter (C) Pyloric sphincter (D) Cardiac sphincter
44. Which is not an enzyme of pancreatic juice:
(A) Amylase (B) Lipase (C) Trypsin (D) Pepsin
45. Maltase enzyme converts maltose into:
(A) Sucrose (B) Glucose (C) Galactose (D) Fructose
46. When the chyme is neutralized by sodium bicarbonate in the small intestine, it gets converted into:
(A) Pancreatic juice (B) Duodenal juice (C) Chyle (D) Gastric juice
47. Liver secretes bile into:
(A) Ileum (B) Jejunum (C) Stomach (D) Duodenum
48. Ammonia, a waste product of amino acid metabolism is converted into urea in:
(A) Lungs (B) Liver (C) Pancreas (D) Kidney
49. The villi and microvilli in small intestine increase:
(A) Absorption (B) Digestion (C) Mixing of food (D) Assimilation

50. Each villus is supplied richly with blood capillaries and a vessel called lacteal of:
 (A) Nervous system (B) Digestive system
 (C) Lymphatic system (D) Endocrine system
51. Caecum is a blind sac between:
 (A) Colon and rectum (B) Jejunum and colon
 (C) Ileum and colon (D) Jejunum and ileum
52. Excess gastric secretion is an important factor of:
 (A) Food poisoning (B) Obesity (C) Peptic ulcer (D) Piles
53. Fresh saliva has pH:
 (A) 2 (B) 6 (C) 8 (D) 14
54. Taste buds of tongue play important role in food:
 (A) Mastication (B) Lubrication (C) Selection (D) Digestion
55. Which of the following is a parasitic plant:
 (A) Dionea (B) Sarracenia (C) Drosera (D) Cuscuta
56. pH of fresh saliva is nearly:
 (A) 9 (B) 8 (C) 6 (D) 7
57. Excess gastric secretions is an important factor of:
 (A) Food poisoning (B) Piles (C) Obesity (D) Peptic ulcer
58. Length of the duodenum is:
 (A) 20 - 25 cm (B) 20 - 25 mm (C) 20 - 25 meters (D) 20 - 25 Km
59. A plant requires nitrogen and sulfur for its:
 (A) Enzymes (B) Starch deposits (C) DNA replication (D) Cell wall
60. A plant requires potassium for:
 (A) Synthesizing chlorophyll (B) All of the these
 (C) Opening and closing of stomata (D) Synthesizing protein
61. Carnivorous plants live in soils that are deficient in:
 (A) Oxygen (B) Iron (C) Nitrogen (D) Water
62. Mucus in saliva is made of:
 (A) Phospholipids (B) Transport molecules (C) Glycolipids (D) Proteins
63. Digestion killing and softening of food that take place in the medium.
 (A) Basic (B) Acidic (C) Neutral (D) None of these
64. Many humans become ill from consuming milk and milk products because the lack:
 (A) Rennin (B) HCl
 (C) Lactase (D) Bacteria in their intestines
65. In amoeba digestion is:
 (A) No digestion and extracellular (B) Both intracellular
 (C) Intracellular (D) Extracellular
66. The partly digested food in cockroach is temporarily stored in:
 (A) Rectum (B) Crop (C) Stomach (D) Gizzard

67. Tentacles is characteristics of:

- (A) Euglena **(B) Hydra** (C) Snail (D) Amoeba

68. Which of the following has tube type digestive system?

- (A) Cockroach** (B) Hydra (C) Planaria (D) Amoeba

69. In cockroach partly digested food is temporarily stored in:

- (A) Pit **(B) Crop** (C) Gizzard (D) Rectum

70. is the utilization of the products of digestion for production of energy or synthesis of cellular material.

- (A) Assimilation** (B) Absorption (C) Egestion (D) None of these

71. An obese person is more likely to suffer from:

- (A) Heart disease (B) Diabetes mellitus
(C) All of these (D) High blood pressure

72. Ulcer results in sore or hole in the wall of:

- (A) Duodenum (B) Stomach or trachea
(C) Stomach or duodenum (D) Stomach

73. Insufficient quality or quantity of bile secretions is responsible for causing:

- (A) Bulimia (B) Piles **(C) Dyspepsia** (D) Anorexia

74. occur from 12 - 24 hours after eating contaminated food.

- (A) Food poisoning** (B) Obesity (C) Dypepria (D) None of these

75. Deficiency of phosphorus in plants causes:

- (A) Premature death of plants (B) Yellowing of leaf margins
(C) Stunted growth of roots (D) Chlorosis

Fill in the blanks

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Q1: Plants absorb minerals in their form, as found in the soil

Q2: The stomach functions to and food and its

Q3: The structure in the mouth that prevents food from entering the nasal cavities is the

Q4: In the trapped insects are decomposed by bacteria.

Q5: Chlorosis is usually caused by insufficien

Q6: A plant requires for holding its cell together.

Q7: In plants the most common nutrient deficiencies are of, and

Q8: is the common example of detrivores.

Q9: Pancreas produces which stimulates the conversion of glycogen to

Q10: Vomiting occurs due to movements.

Q11: Most of the organic material in a plant is

Answers

- | | | |
|--------------------------------------|-----------------------------|------------------------|
| 1. Ionic , water | 2. Store , digest ,churning | 3. Soft palate |
| 4. Pitcher plant | 5. Nitogen | 6. Water |
| 7. Nitrogen , potassium , phosphorus | 8. Earthworm | 9. Amylopsin , Maltose |
| 10. Antiperistaltic | 11. Carbohydrates | |

Chapter : 12

Nutrition

Subjective

Q1: **What is stomach?**

Ans: It is enlargement of the anterior region of the gut. In vertebrates it follows oesophagus and usually has muscular walls which are helpful in crushing the food, and the lining cells secrete pepsin and hydrochloric acid.

Q2: **Write down two function of tongue.**

Ans: **Function of tongue:**

- Holds food in position between the teeth.
- Manipulation of food.

Q3: **Define nutrition.**

Ans: Nutrition is the sum total of all the processes concerned with growth, repair and maintenance of the living organism as a whole or its constituent parts.

Q4: **What does bolus of food mean?**

Ans: As a result of mastication in the oral cavity, the softened, partly digested, slimy food mass is rolled by the tongue into small oval lump called as bolus.

Q5: **Name the bacteria which commonly cause food poisoning.**

Ans: These bacteria are Salmonella and Campylobacter.

Q6: **What is the number and nature of sphincters around the areas of man?**

Ans: The human anus is surrounded by two sphincters, the internal of smooth and the outer of striped muscles.

Q7: **Name the parts of the large intestine of man.**

Ans: These are the colon, caecum and the rectum from in-front backwards.

Q8: **How is Jaundice caused?**

Ans: Jaundice is caused by the accumulation of bile pigments in the blood.

Q9: **In which machine form is trypsin secreted? How is it activated?**

Ans: Trypsin is secreted in the inactive form of trypsinogen which is activated by an enzyme, enterokinase, secreted by the duodenum.

Q10: **Name two animals which possess a sac like digestive system.**

Ans: These animals are Hydra and Planaria.

Q11: **How does Amoeba engulf solid food particles?**

Ans: The Amoeba engulfs solid food particles with the help of pseudopodia.

Q12: **What is most appropriate name for digestive cavity of Hydra?**

Ans: It is the coelenteron.

Q13: **Name the opening through which undigested food is ejected in Hydra and the Planaria?**

Ans: It is the mouth.

Q14: **Which parts are included in the fore-gut of cockroach?**

Ans: These are mouth, cavity, pharynx, crop and gizzard.

Q15: **What is botulism? What is its cause?**

Ans: The severe form of food poisoning is called botulism. Its cause is a bacterium known as *Clostridium botulinum*.

Q16: **Define obesity.**

Ans: The deposition of abnormal amount of fat on the body is termed as obesity.

Q17: **What is the emulsification of fats? Which secretion emulsifies fats?**

Ans: The breaking down of fats into small globules is called emulsification. It is brought about by the bile.

Q18: **What are the functions of the enzymes amino-peptidase and erepsin of the intestinal juice?**

Ans: The amino-peptidase converts poly-peptidase into dipeptidase whereas the erepsin splits dipeptides into amino acid.

Q19: **How are gallstones formed in the gall bladder?**

Ans: The gallstones are formed in the gall bladder due to the precipitation of cholesterol, secreted by the liver.

Q20: **What are piles or haemorrhoids?**

Ans: These are masses of dilated, tortuous veins in the anorectal mucosa which bleed during bowel movements.

Q21: **How is constipation caused in man?**

Ans: Constipation may be caused due to excessive absorption of water through the large intestine.

Q22: **Define dyspepsia. What are its symptoms?**

Ans: Imperfect digestion is called dyspepsia. Its symptoms are abdominal discomfort, flatulence, heartburn, nausea and vomiting.

Q23: **Write down the pH of fresh and stale human saliva.**

Ans: The pH of the fresh human saliva is about 8 and that of the stale saliva is 6.

Q24: **Why some people develop intestinal gas and diarrhea by consuming milk products?**

Ans: Many humans develop intestinal gas and diarrhea by consuming milk products because they lack the enzymes for digesting lactose in milk.

Q25: **Define detritus.**

Ans: Detritus is the organic debris derived from the decomposing plants and animals.

Q26: **Explain a predation.**

Ans: A predator is an animal which captures and readily kills other animals for its food.

Q27: **How do the farmers replenish the deficiency of nutrient salts?**

Ans: The deficiency of nutrient salts is replenished by adding animal manure, sewage sludge or artificial chemical fertilizers to the soil.

Q28: **Explain heart burn or pyrosis.**

Ans: It is a painful burning sensation in the chest usually associated with the back flush of acidic chyme into the oesophagus.

Imp.Long Questions

- Q1: Write the process of digestion in amoeba.
- Q2: Describe process of nutrition in Hydra.
- Q3: Explain digestion in cockroach. (v.imp)
- Q4: Explain digestion in oral cavity of man. (v.imp)
- Q5: Explain digestion in stomach of man. (v.imp)
- Q6: Describe digestion of food in small intestine and also explain absorption of food.
- Q7: Describe absorption and digested food in small intestine of man. (v.imp)
- Q8: Describe the role of pancreas and liver in food digestion in Human.
- Q9: Give the role of large intestine in human beings.
- Q10: Describe any two common diseases related to nutrition.
- Q11: Write a note on obesity and dyspepsia.
- Q12: Write a note on food poisoning. (v.imp)
- Q13: Write notes on the following. (i). Obesity (ii). Bulimia nervosa
- Q14: Describe nutrition in insectivorous plants.
- Q15: Discuss any four methods of nutrition in animals.
- Q16: Write a note on parasitic nutrition

