

1. The process of obtaining energy through consumption of food is called as
  - a. Nutrition
  - b. Excretion
  - c. Respiration
  - d. Transportation
  
2. Most of these food sources are
  - a. carbon-based
  - b. oxygen-based
  - c. Plant-based
  
3. The process of acquiring oxygen through breathing and make it available to cells for the process of breaking down of organic substances into simpler compounds is called as
  - a. Nutrition
  - b. Excretion
  - c. Respiration
  - d. Transportation
  
4. The process by which the food and oxygen is carried from one organ to other organs in the body is
  - a. Nutrition
  - b. Excretion
  - c. Respiration
  - d. Transportation
  
5. The process by which the metabolic waste by-products are removed from the different organs and released out from the body
  - a. Nutrition
  - b. Excretion
  - c. Respiration
  - d. Transportation
  
6. Materials which provide nutrition to organisms are called
  - a. Food
  - b. Nutrients
  - c. Vitamins
  - d. Proteins
  
7. Which among the following is NOT a macro nutrient

- a. Carbohydrates
  - b. Proteins
  - c. Vitamins
  - d. Fats
8. Which among the following is a micro nutrient
- a. Carbohydrates
  - b. Proteins
  - c. Minerals
  - d. Fats
9. The mode of nutrition in which an organism prepares its own food is called
- a. Autotrophic nutrition
  - b. Heterotrophic nutrition
10. Green plants and blue-green algae follow .....type of nutrition
- a. Autotrophic
  - b. Heterotrophic
11. Saprophytic nutrition is a type of ..... nutrition
- a. Autotrophic
  - b. Heterotrophic
12. The most common chemical means to break-down molecules is
- a. Oxidising-reducing reactions
  - b. Photosynthesis
13. Heterotrophic organisms include
- a. Animals and fungi
  - b. Animals and bacteria
  - c. Animals and algae
14. What are the three types of heterotrophic nutrition?  
Saprophytic nutrition, holozoic nutrition, and parasitic
15. Carbon and energy requirements of the autotrophic organism are fulfilled by
- a. Photosynthesis
  - b. Oxidising-reducing reactions
16. The process by which autotrophs take in substances from the outside and convert them into stored forms of energy is known as
- a. Photosynthesis
  - b. Chemosynthesis

17. During Photosynthesis carbon dioxide and water are converted into
- Carbohydrates
  - Proteins
  - Fats
18. ....are utilised for providing energy to the plant
- Carbohydrates
  - Proteins
  - Oxygen
19. The plants store carbohydrates which are not used immediately, in the form of
- Stem
  - Starch
  - Roots
  - Fruits
20. In human beings the energy derived from the food we eat is stored in our body in the form of
- Glucose
  - Glycogen
  - Fats

### **21. Equation, Photosynthesis**

22. The chlorophylls are contained in
- Stem
  - Leaf
  - Chloroplasts
23. The tiny pores present on the surface of the leaves are called
- Granules
  - Stomata
24. Massive amounts of gaseous exchange takes place in the leaves through .... for the purpose of photosynthesis.
- Leaf edges
  - Stomata
  - Leaf veins
25. The plant closes stomata when it does not need carbon dioxide for photosynthesis using specialized cells called
- Tissue
  - Stomatic pores
  - Guard cells
- 26. The stomatal pore open when**
- Water flows into guard cells**
  - Water flows out of guard cells**
- 27. Plants take Nitrogen, which is an essential element used in the synthesis of proteins and other compounds, from soil in the form of**
- Inorganic nitrates or nitrites**
- 28. Plants collect Nitrogen in the form of organic compounds which have been prepared by bacteria from atmospheric nitrogen**
- 29. Examples for organisms which break-down the food material outside the body and then absorb it are:**

- a. Fungi like bread moulds, yeast and mushrooms
  - b. Algae
  - c. Bacteria
30. The organisms which derive nutrition from plants or animals without killing them are called
- a. Parasites
  - b. Heterotrophs
31. Give an example of parasitic plant  
Cuscuta (amar-bel)
32. Give an example of parasitic animals  
Ticks, lice, leeches and tape-worms
33. In single-celled organisms, the food may be taken in
- a. Entire surface
  - b. Middle of the body
  - c. Outer layer
34. Amoeba takes in food using temporary finger-like extensions of the cell surface which fuse over the food particle forming
- a. Food-vacuole
  - b. Food capsule
35. In Amoeba, Inside the food-vacuole, complex substances are broken down into simpler ones which then diffuse into
- a. Cytoplasm
  - b. Nucleus
36. In Paramecium, the food is taken in at a specific spot by
- a. Movement of cilia
  - b. Movement of cytoplasm
37. The long tube extending from the mouth to the anus in human being is called
- a. Alimentary canal
  - b. Intestine
38. The food is broken into smaller molecules by  
Biological catalysts called enzymes
39. The saliva contains an enzyme called  
Salivary amylase
40. Salivary amylase breaks down starch which is a complex molecule to give sugar
41. The rhythmic movement of the lining of Alimentary canal muscles to push the food forward is known as  
Peristaltic movements
42. From the mouth, the food is taken to the stomach through the food-pipe called...  
Oesophagus

43. The gastric glands present in the .....  
Wall of the stomach
44. The digestive functions in our body are taken care of by  
Gastric glands
45. The gastric glands present in the wall of the stomach release  
Hydrochloric acid, a protein digesting enzyme called pepsin, and mucus
46. The protein digesting enzyme released by the gastric glands is called  
Pepsin
47. The hydrochloric acid creates an acidic medium which facilitates the action of  
the enzyme pepsin
48. The mucus protects the inner lining of the stomach from the action of the  
acid under normal conditions
49. The longest part of the alimentary canal is  
Small intestine
50. sphincter muscle is a muscle which regulates the exit of food from the  
stomach into small intestine
51. The exit of food from the stomach is regulated by a sphincter muscle which  
releases it in small amounts into the small intestine
52. The small intestine is the site of the complete digestion of carbohydrates,  
proteins and fats.
53. Small intestine, the longest part of the alimentary canal is fitted into a  
compact space because of extensive coiling
54. The length of the small intestine differs in various animals depending on .....  
**The food they eat**
55. Herbivores have a longer small intestine. Why?  
They eat grass which needs a longer small intestine to allow the cellulose to  
be digested.
56. Carnivores have a longer small intestine. Why?  
They eat meat which is easier to digest, hence carnivores like tigers have a  
shorter small intestine.
57. Rhythmic contraction of muscles of the lining of the alimentary canal to push  
the food forward is known as .....  
Peristaltic movement
58. Describe two functions of Bile juice
- The bile juice make the acidic food coming from the stomach to alkaline  
so that pancreatic enzymes can act on the food.
  - Bile juice also breaks the fats in the intestine in the form of large  
globule into small ones
59. The Bile juice is released by ...  
Liver
60. Bile gets stored in  
Gall bladder

61. The process of breaking down of fat into smaller particles is known as  
Emulsification of fat
62. The juice secreted by the pancreas is  
Pancreas juice
63. The enzymes contained in the Pancreas juice are  
Trypsin and lipase
64. The function of Trypsin is to....  
Digest the protein
65. Name the enzyme which digest the protein  
Trypsin
66. The function of Lipase enzyme is  
Breaking down of emulsified fats
67. Name the enzyme that breaks down emulsified fats  
Lipase
68. The enzymes contained in the walls of the small intestine converts the  
**Proteins into Amino Acids**, complex **Carbohydrates into Glucose** and **Fats into Fatty Acids and Glycerol**
69. The digested food is taken up by the walls of the intestine
70. The inner linings of the small intestine has small finger-like projections called villi, which helps in absorption of the food. The villi contains a lot of blood vessels.
71. Most of the water absorption in the body takes place at  
Large intestine
72. The waste materials exit from the body through  
Anus
73. The muscle which regulates the exit of waste through anus is  
Anal Sphincter
74. Large intestine is smaller than small intestine. True OR False?  
True
75. Name the three-carbon molecule produced by breaking the six-carbon glucose molecule  
Pyruvate
76. The process of breaking the six-carbon glucose molecule into a three-carbon molecule called pyruvate, is taking place in the .....  
Cytoplasm
77. The conversion of pyruvate into ethanol and carbon dioxide takes place in  
.....  
Yeast during fermentation
78. During fermentation, pyruvate is converted into .... and ....  
Ethanol and carbon dioxide
79. The Break-down of pyruvate using oxygen takes place in the .....  
Mitochondria
80. Respiration is of two types, .....and .....

Aerobic respiration and anaerobic respiration

81. The type of respiration happens in the presence of oxygen is known as ..  
Aerobic respiration
82. The type of respiration happens in the absence of oxygen is known as ..

Anaerobic respiration

83. The process of conversion of pyruvate into lactic acid is an example for ...

Anaerobic respiration

84. When someone runs too fast, he may experience a throbbing pain in the leg muscles. This happens because of anaerobic respiration taking place in the muscles. During running, the energy demand from the muscle cells increases. This is compensated by anaerobic respiration and lactic acid is formed in the process. The deposition of lactic acid causes the pain the leg muscles. The pain subsides after taking rest for some time.
85. In Yeast, the Pyruvate is converted into Ethanol, Carbon di Oxide and Energy in the absence of Oxygen
86. In our muscles, the Pyruvate is converted into Lactic Acid and Energy in the absence of Oxygen
87. In our body, the Pyruvate is converted into Carbon dioxide, Water and Energy in mitochondria in the presence of Oxygen
88. Mitochondria is the site of aerobic respiration
89. The energy released in aerobic respiration is used for forming a molecule called ... using ADP (Adenosine Di Phosphate). and inorganic phosphate ATP (Adenosine trii phosphate).
90. The ATP is stored in ..... and is released as per need  
Mitochondria
91. Carbon dioxide and oxygen are exchanged by diffusion at .....in plants  
Stomata
92. At night, when there is no photosynthesis occurring, more CO<sub>2</sub> is diffuses from plants to the environment
93. At day time, when there is photosynthesis occurring, more O<sub>2</sub> is diffuses from plants to the environment
94. During the day, CO<sub>2</sub> generated during respiration is used up for photosynthesis, hence there is no CO<sub>2</sub> release. Instead, oxygen release is the major event at this time.
95. Since the amount of dissolved oxygen is fairly low compared to the amount of oxygen in the air, the rate of breathing in aquatic organisms is much faster than that seen in terrestrial organisms.
96. The .....present in the throat of human beings ensures that the air passage does not collapse  
Rings of Cartilage

97. Within the lungs, the air passage divides into smaller and smaller tubes which finally terminate in balloon-like structures which are called alveoli
98. The respiratory pigment in human beings is known as  
Haemoglobin
99. The Haemoglobin is present in blood in ....  
Red Blood Corpuscles
100. Carbon dioxide is more soluble in water than oxygen is and hence is mostly transported in the dissolved form in our blood
101. The fluid medium of the blood is called ...  
Plasma
102. Plasma transports food, carbon dioxide and nitrogenous wastes in dissolved form
103. The chambers of the heart which pump blood to different body organs is ..  
Ventricles
104. The ventricles have thick muscular walls than atria because,
105. Blood goes only once through the heart in the fish during one cycle of passage through the body
106. Blood goes only once through the heart in the fish during one cycle of passage through the body
107. The blood goes through the heart twice during each cycle in vertebrates other than fish. This is known as double circulation
108. The force that blood exerts against the wall of a vessel is called ....  
Blood pressure
109. The pressure of blood inside the artery during ventricular systole (contraction) is called ....  
Systolic pressure
110. The pressure in artery during ventricular diastole (relaxation) is called ....  
Diastolic pressure
111. The normal systolic pressure is about .....  
120 mm of Hg
112. The normal diastolic pressure is .....  
80 mm of Hg
113. Blood pressure is measured with an instrument called ....  
Sphygmomanometer
114. High blood pressure is also called ....  
Hypertension
115. High blood pressure is caused by ...  
Constriction of arterioles, which results in increased resistance to blood flow
116. High blood pressure can lead to ....  
Rupture of an artery and internal bleeding
117. Arteries are the vessels which carry blood away from the heart to various organs of the body.



118. Veins collect the blood from different organs and bring it back to the heart
119. Veins do not need thick walls because the blood is no longer under pressure, instead they have valves that ensure that the blood flows only in one direction.
120. The blood has platelet cells which circulate around the body and plug these leaks by helping to clot the blood at these points of injury
121. Lymph drains into ..... from the intercellular spaces  
Lymphatic capillaries
122. ....is responsible for transportation of water and minerals in plants  
Xylem
123. ....is responsible for transportation of food in plants  
Phloem
124. The loss of water in the form of vapour from the aerial parts of the plant is known as .....  
Transpiration
125. The transport of soluble products of photosynthesis in plants is called .....  
Translocation
126. The plant tissue responsible for translocation is known as  
Phloem
127. In Phloem, the transportation of food and other substances takes place in Sieve tubes with the help of adjacent companion cells
128. Material like sucrose is transferred into phloem tissue using energy from ATP
129. The excretory system of human beings includes a pair of kidneys, a pair of ureters, a urinary bladder and a urethra
130. Kidneys are located in the abdomen, one on either side of the backbone. Urine produced in the kidneys passes through the ureters into the urinary bladder where it is stored until it is released through the urethra
131. Nitrogenous waste such as urea or uric acid are removed from blood in the kidneys
132. The filtration units in kidneys are called .....  
Nephrons
133. The process of removing nitrogenous waste from our body through artificial kidney is known as ..  
Dialysis
134. The upward movement of water and minerals from roots to different plant parts is called .....  
Ascent of sap