

Nutrition in Animals - Quiz

Multiple Choice Questions

- The organisms which make their own food are called
a. Heterotrophs b. Autotrophs c. Parasites d. Saprophytes
- The pipe which connects the mouth with the stomach is
a. Epiglottis b. Oesophagus c. Intestine d. Pharynx
- What carries nutrients from digested food to all parts of the body?
a. Blood b. Mucous c. Bile d. Saliva
- Which of these swallow food whole?
a. Ant b. Snake c. Deer d. Cow
- In humans, the type of teeth used to tear the food is
a. Molar b. Premolar c. Incisor d. Canine
- Given below are some food items
i) Boiled and mashed potato ii) Glucose Solution iii) A slice of bread iv) Mustard oil

Which of the above will give blue-black colour when tested with iodine?

- a. i) and ii) b. i) and iii) c. ii) and iii) d. iii) and iv)
- Read carefully the terms given below. Which of the following set is the correct combination of organs that do not carry out any digestive functions?
a. Oesophagus, Large Intestine, Rectum
b. Buccal Cavity, Oesophagus, Rectum
c. Buccal Cavity, Oesophagus, Large Intestine
d. Small intestine, Large intestine, Rectum
- The finger-like outgrowths of Amoeba helps to ingest food. However, the finger-like outgrowths of human intestine helps to
a. digest the fatty food substances.
b. make the food soluble.
c. absorb the digested food
d. absorb the undigested food.

9. Read the following statements with reference to the villi of small intestine.
- They have very thin walls
 - They have a network of thin and small blood vessels close to the surface.
 - They have small pores through which food can easily pass.
 - They are finger-like projections.
10. The false feet of Amoeba are used for
- movement only
 - capture of food only
 - capture of food and movement
 - exchange of gases only
11. The enzymes present in the saliva convert
- fats into fatty acids and glycerol
 - starch into simple sugars
 - proteins into amino acids
 - complex sugars into simple sugars
12. Cud is the name given to the food of ruminants which is
- swallowed and undigested
 - swallowed and partially digested
 - properly chewed and partially digested
 - properly chewed and completely digested
13. Choose the correct order of terms that describes the process of nutrition in ruminants.
- swallowing → partial digestion → chewing of cud → complete digestion
 - chewing of cud → swallowing → partial digestion → complete digestion
 - chewing of cud → swallowing → mixing with digestive juices → digestion
 - swallowing → chewing and mixing → partial digestion → complete digestion
14. Cellulose-rich food substances are good source of roughage in human beings because
- human beings do not have cellulose-digesting enzymes
 - cellulose gets absorbed in the human blood and converts in to fibres.
 - the cellulose-digesting bacteria convert cellulose into fibres.
 - cellulose breaks down into smaller components which are egested as roughage.
15. Which of these is not a part of nutrition?
- digestion
 - absorption
 - Egestion
 - excretion
16. The last part of digestion of food takes place in the
- stomach
 - small intestine
 - large intestine
 - oesophagus

17. The greatest amount of digestion of food in humans takes place in the
a. mouth b. stomach c. small intestine d. large intestine
18. Bile is produced in the
a. stomach b. small intestine c. pancreas d. liver
19. What kind of teeth do you think are especially developed in carnivores?
a. incisors b. canines c. pre-molars d. molars

Answer the following Questions

1. Digestion is the process of breaking down of food into simple, _____ form.
2. What is the name given to the process of using the absorbed food for producing energy?
3. Name the cavity in unicellular animals in which food is present.
4. Digestion begins in the stomach. True or False?
5. Saliva helps by making the food wet. It does not have any other function. True or false?
6. Where does initial digestion of proteins take place?
7. The white hard substance that covers the teeth is called _____
8. In which part of the digestive system is water absorbed from undigested food?
9. The semi-digested food that is chewed again by ruminants is called _____
10. The function of the villi is to hold the food in the spaces between them so that food can be absorbed by the walls of the intestine. True or False?
11. Which food do you think will take a longer time to get digested-sugar or beans (beans contain lot of proteins)?
12. Digestion needs the help of two more systems in the body to provide energy from food. Which are these systems and how do they help?
13. If you eat food while hanging upside down, do you think it will still go through the alimentary canal? Give reasons.
14. Name the parts of the alimentary canal where
 - a. water gets absorbed from undigested food
 - b. digested food gets absorbed
 - c. taste of the food is perceived
 - d. bile juice is produced
15. Mark the following statement as True or False. If false, write the correct statements.
 - a. Tongue is attached to the roof of the mouth cavity at the back.
 - b. The large intestine is longer and wider than the small intestine of the human alimentary canal.
 - c. Mucus protects the stomach lining from damage.
 - d. All heterotrophs have a similar basic process of nutrition.

16. Choose the odd one out from each group and give reasons.
- liver, salivary gland, starch, gall bladder
 - stomach, liver, pancreas, salivary gland
 - tongue, absorption, taste, swallow
 - oesophagus, small intestine, large intestine, rectum
17. Following statements describe the five steps in animal nutrition. Read each statement and give one word for each statement. Write the terms that describes each process.
- Transportation of absorbed food to different parts of body and their utilization.
 - Breaking of complex food substances into simpler and soluble substances.
 - Removal of undigested and unabsorbed solid residues of food from the body.
 - Taking food into the body.
 - Transport of digested and soluble food from the intestine to blood vessels.
18. Ram took some grains of boiled rice in test tube A and Shyam took boiled and chewed rice in test tube B. Both of them poured 1-2 drops of Iodine solution in to the test tube and observed the colour change. What colour change would they have observed? Give reasons for your answer.
19. A got her gall bladder removed surgically as she was diagnosed with stone in her gall bladder. After the surgery, she faces problems in digestion of certain food items when consumed in bulk. Can you tell which kind of food items would they be and why?
20. Ruminants such as cows and buffaloes swallow their food hurriedly and then sit restfully and chew their food. Can you reason why?
21. Ram and Shyam were eating their food hurriedly so that they could go out and play during the recess. Suddenly, Ram started coughing violently. Think of the reasons why he was coughing and discuss with your friends.
22. Read the following passage carefully and answer the questions that follow it.
- Bile juice is stored in a sac called, gall bladder, located near its organ of secretion, liver. The gall bladder releases the bile juice into the small intestine whenever food reaches there. Though bile juice is devoid of any digestive enzymes, it is required for the digestion of fats. The fats cannot be digested easily because they are insoluble in water and are present as large globules. Bile juice breaks down big fat droplets into smaller droplets. These are then easily digested by the enzymes released from the pancreas.
- Which organ secretes the bile juice?
 - Why is digestion of fats difficult as compared to that of other nutrients?
 - How does bile juice help in digestion of fat?
 - Where is the digestion of fat completed?
 - Does bile juice digest fat completely?

23. Label the following parts in the figure and name them.

(a) The largest gland in our body.

(b) The organ where protein digestion starts.

(c) The organ that releases digestive juice into the small intestine.

(d) The organ where bile juice gets stored.



24. Raman's mother does not allow him to talk while eating. She also does not allow him to eat food while lying down. What could be the reason for it?

ANSWER

Multiple Choice Questions

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

- 18. d
- 19. b

Answer the following Questions

1. Soluble
2. The process of producing energy from the absorbed food is known as assimilation.
3. In unicellular animals, food is present in the cavity called food vacuole.
4. It is a false statement, as the digestion of food begins in the mouth.
5. False, saliva not just makes the food wet but also breaks down the starch into sugar which is easier to digest.
6. The initial digestion of proteins takes place in the stomach.
7. The white hard substance that covers the teeth is called enamel.
8. Most of the water from the undigested food is absorbed in the large intestine.
9. The semi-digested food that is chewed again by ruminants is called cud.
10. True. Villi are finger-like projections that hold the food in the spaces between them so that the food can be easily absorbed by the walls of the intestine.
11. As compared to sugar, beans will take longer time for digestion, as they contain a lot of proteins. The digestion of sugar starts in the mouth, while the digestion of proteins starts in the stomach. So, the proteins of the beans will take longer time to get digested.
12. Two more systems which help the digestive system to provide energy to our body are the respiratory system and the cardiovascular system. The glucose absorbed in the digestive system combines with the oxygen, taken in during respiration, to form energy. These two are then transported throughout the body via blood of the cardiovascular system.
13. Yes. Even if we eat food while hanging upside down, it will go through the alimentary canal because of the process of peristalsis. The muscles of the oesophagus will push the food downwards in a wave like action throughout the alimentary canal.
14.
 - a. Large Intestine
 - b. Small Intestine
 - c. Tongue
 - d. Liver
15.
 - (a) False — Tongue is attached to the floor of the mouth cavity at the back.
 - (b) False – The large intestine is shorter and wider than the small intestine of the human alimentary canal.
 - (c) True
 - (d) True
- 16.

(i) Starch is the odd one out because it is a complex sugar whereas all others i.e., liver, salivary gland and gall bladder are body organs.

(ii) Stomach is the odd one out because in stomach, digestion of food takes place. Liver, pancreas and salivary glands secrete bile, pancreatic juice and saliva respectively but digestion of food does not take place inside these organs.

(iii) Absorption is the odd one out because tongue (organ), taste (sense) and swallow (process) all are associated with mouth while absorption process does not occur in mouth.

(iv) Small intestine is the odd one out because no digestive juices are released by other parts and hence no digestion occurs in other parts.

17.

(a) Assimilation

(b) Digestion

(c) Egestion

(d) Ingestion

(e) Absorption

18. After pouring iodine solution in test tube 'A', its colour will change to blue-black due to the presence of starch in boiled rice. In test tube B, colour of iodine will not change because of digestion of starch into sugars by the action of salivary amylase enzyme during chewing.

19. The food items would be fats because bile juice which is stored by the gall bladder helps in the digestion of fats. Removal of gall bladder leads to difficulty in digestion of fats.

20. Ruminants are hooved plant eating animals (e.g., cattle, sheep, goat etc.) possess a unique digestive system. Their stomach is divided into four compartments – rumen, reticulum, omasum and abomasum. During grazing, they quickly swallow plenty of grass without much chewing. This is an adaptation by which they need very little time for feeding. The half-chewed food is swallowed and it first goes from mouth to the rumen, the first chamber of the stomach. Here it is acted upon by bacteria and microorganisms. This half-digested food then goes to the second muscular chamber-the reticulum, from where it is sent back to the mouth as cud to be chewed again. After completely chewed, the food is sent to other parts of stomach i.e., abomasum and omasum; and ultimately to intestine for complete digestion and absorption of food.

21. Pharynx is a common passage for both food and air. A cartilaginous flap called epiglottis closes the opening of wind pipe while eating and thus prevents the entry of food into the wind pipe. Sometimes, when one eats hurriedly, talks or laughs while eating, the epiglottis remains open. The food may enter the wind pipe and coughing helps to clear it.

22.

(a) Liver secretes the bile juice.

(b) Digestion of fats is difficult because fats are insoluble in water and are present as large globules.

(c) Bile juice breaks down big fat droplets into smaller droplets so that they can be easily digested.

(d) Digestion of fat is completed in small intestine.

(e) No. Bile juice does not contain any enzyme and therefore, it does not digest fat.

23.

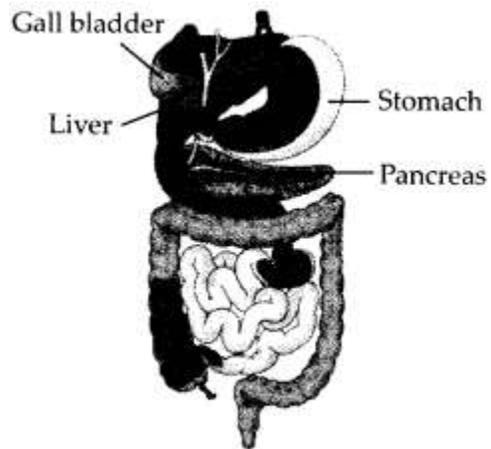


Fig. 2.2

24. The food will get stuck in food pipe or may be enters in air or voice box will get sudden hiccups or some respiratory problems.