2

Nutrition in Animals

ORAL QUESTIONS

A. Answer these questions orally.

1. What is the watery secretion of salivary glands called?
2. Name two ectoparasites.
3. Name two endoparasites.
4. What is the mode of nutrition in herbivorous, carnivorous and omnivorous animals called?
5. Does *Amoeba* have mouth or anus?
6. What is the approximate length of the oesophagus in humans?
7. Name the hardest substance in our body.
8. Name the enzyme present in saliva.

PUZZLE/QUIZ

B. Find eight terms related to the chapter Nutrition in Animals. Write a few lines on them.

R	P	X	F	O	V	C	J	N	D	D	B
U	D	S	T	O	M	A	C	H	I	D	I
M	E	K	Z	N	A	F	S	C	G	L	L
I	E	G	E	S	T	I	O	N	E	H	E
N	Y	Q	R	M	T	L	M	F	S	V	M
A	K	A	B	J	N	O	L	W	T	I	J
N	R	R	H	O	L	O	Z	O	I	C	H
T	O	N	G	U	E	B	H	A	O	Q	V
S	W	Q	M	C	T	L	Z	U	N	E	I
I	N	G	E	S	T	I	O	N	O	S	L
Y	X	D	G	K	U	G	G	E	I	I	L
S	C	A	V	E	N	G	E	R	S	P	I

C. Rewrite the following statements correctly.

1. Water and salts are absorbed by the stomach during digestion.

2. Absorption of digested food takes place in buccal cavity and oesophagus.

3. Pigs are herbivores.

4. Parasitic animals feed on dead and decaying organic matter.

5. Vultures and crows are saprophytes.

6. *Amoeba* has stinging cells that kill the prey.

7. Plant food is deficient in cellulose.

8. The correct order of the steps involved in holozoic nutrition is egestion, ingestion, assimilation, digestion, absorption.

CLASS TEST

D. MCQ–Tick (✓) the correct option.

1. Which of the following statements is incorrect?
   (a) The stomach of ruminants has two chambers. ☐
   (b) Plant food is rich in cellulose. ☐
   (c) Glucose is oxidised to release energy inside the cells. ☐
   (d) Intestinal wall absorbs digested food. ☐
2. The process by which simple molecules of digested food enter the blood is called
   (a) Assimilation ☐ (b) Rumination ☐
   (c) Absorption ☐ (d) Egestion ☐
3. Body louse is
   (a) An ectoparasite ☐ (b) An endoparasite ☐
   (c) A scavenger ☐ (d) A saprophyte ☐
4. Partly digested food stored in the rumen of stomach in some grass-eating animals is called.
   (a) Caecum ☐ (b) Cud ☐
   (c) Cellulose ☐ (d) Starch ☐
5. Which of the following protects the lining of stomach from the action of enzymes and acids?
   (a) Bile ☐
   (b) Pancreatic juice ☐
   (c) Mucus ☐
   (d) Villi ☐

E. Very short answer questions.

1. What do the inner walls of the small intestine contain?

   _____

2. Where is excess of glucose stored?

   _____

3. Does digestion occur in oesophagus?

4. How does ingestion occur in *Amoeba*.

5. How do frogs catch insects?

F. Short answer questions.

1. Differentiate between absorption and assimilation.

ABSORPTION	ASSIMILATION

2. Give the functions of the following.
   (a) Tentacles in *Hydra*

   (b) Cilia in *Paramecium*

   (c) Pseudopodia in *Amoeba*

   (d) Tongue in humans

3. What is digestion?

4. How does ingestion occur in a cow?

5. What does alimentary canal consist of?

6. Name the digestive glands found in humans.

7. Why can we not digest cellulose?

8. Complete the following table.

ORGAN OF THE DIGESTIVE SYSTEM	NUTRIENT PRESENT IN FOOD	END PRODUCT AFTER DIGESTION
Stomach	_____	_____
_____	Fats	Fatty acids and glycerol
_____	_____	Simple sugars such as fructose and glucose

G. Long answer questions.

1. Explain how *Amoeba* derives its nutrition.

2. What happens to the food once it reaches the buccal cavity?

3. What are the functions of the stomach?

4. What are the functions of the small intestine?

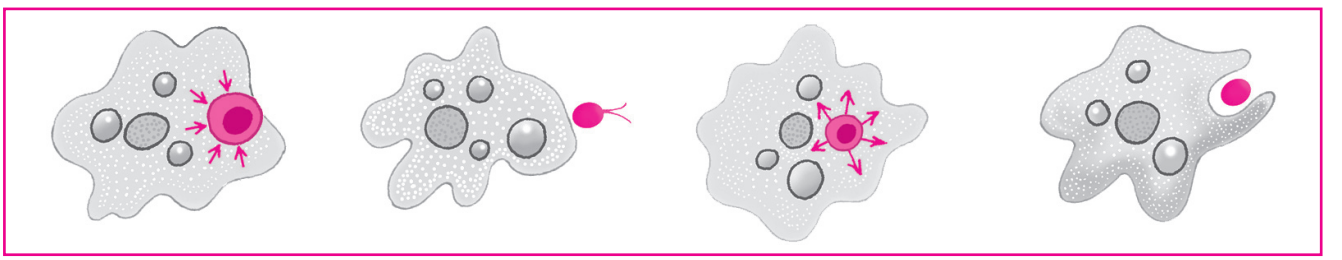
5. How is the small intestine designed for the efficient absorption of nutrients?

6. Explain how digestion of food takes place in ruminants.

HOME ASSIGNMENT

H. Think and answer.

1. The steps involved in the digestion of food in *Amoeba* have been jumbled in the pictures shown below.

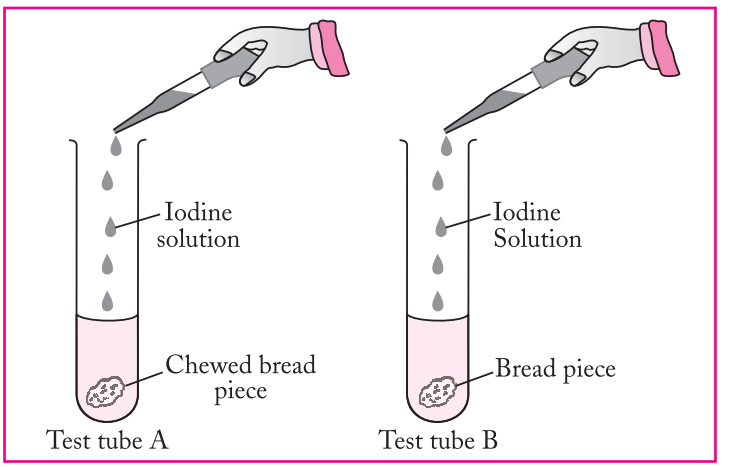


Redraw the pictures in the correct order.

2. Aditi prepared the following four samples— (a) bitter gourd (karela) juice, (b) amla juice, (c) common salt solution and (d) sugar solution. She then asked her friend Aayushi to close her eyes and take out her tongue and keep it in a straight position. Aditi then placed a drop of each sample one by one on different regions of her tongue. Now draw diagram of the tongue and label it to show:
   (a) Which area of her tongue will detect the bitter substance?
   (b) Which area of her tongue will detect sweet substance?
   (c) Which area of her tongue will detect sour substance?
   (d) Which area of her tongue will detect salty substance?

3. Rohit saw cows chewing even when they were not eating food. What could be the reason?

4. Look at the following figures. Shobhit placed a piece of bread without chewing it in test tube B. However, he chewed another piece of bread and placed it in test tube A. He added little water and iodine solution in both the test tubes. He found that mixture placed in the tube B changed to blue-black colour. No change of colour was observed in test tube A. What could be the possible reason.



WORKSHEET

I. Give reasons for the following.

1. Earthworms are called saprophytes. Why?

2. We should avoid eating starchy foods, toffees, chocolates, etc.