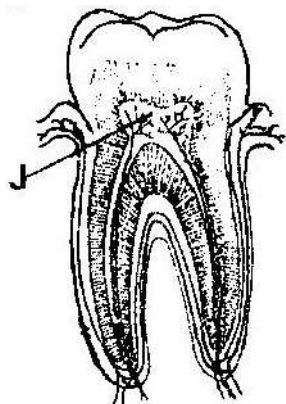


## NUTRITION IN ANIMALS

### PAST KCSE QUESTIONS ON THE TOPIC

1. a) Name the bacteria found in the root nodules of leguminous plant.  
(1mk)
- b) State the association of the bacteria named in a) above with the leguminous plants. (1mk)
2. a) State the function of co-factors in cell metabolism.
- b) Give one example of metallic co-factor.
3. Name the disease in humans that is caused by lack of vitamin C. (1mk)
4. Name a disease caused by lack of each of the following in human diet;  
Vitamin D (1mk)  
Iodine (1mk)
5. Explain how birds of prey are adapted to obtaining their food. (2mks)
6. Explain biological principles behind the preservation of meat by;  
i) Salting  
ii) Refrigeration  
iii) Canning (3mks)
7. State one similarity and one difference between parasitic and predatory modes of feeding (3mks)
8. In an investigation, the pancreatic duct of a mammal was blocked. It was found that the blood sugar regulation remained normal while food digestion was impaired. Explain these observations. (3mks)

9. Give a reason why lack of roughage in diet often leads to constipation.
10. a) What does the term digestion mean? (2mks)  
b) Describe how the mammalian small intestine is adapted to its function. (18mks)
11. State the role of vitamin C in humans. (2mks)
12. a) Distinguish between the terms homodont and heterodont. (1mk)  
b) What is the function of carnassial teeth? (1mk)  
c) A certain animal has no incisors, no canines, 6 premolars and 6 molars in its upper jaw, in the lower jaw there are 6 incisors, 2 canines, 6 premolars and 6 molars. Write its dental formula.
13. a) State two functions of bile juice in the digestion of food. (2mks)  
b) How does substrate concentration affects the rate of enzyme action? (1mk)
14. Name the end-products of the light stage in photosynthesis. (2mks)
15. The diagram below represents a section through a human tooth.



- a)
    - i) Name the type of tooth shown.
    - ii) Give a reason for your answer in (a) (i) above. (1mk)
  - b) State a factor that denatures enzymes. (1mk)
16. a) Name a fat soluble vitamin manufactured by the human body. (1mk)
- b) State two functions of potassium ions in the human body. (2mks)
17. a) The action of ptyalin stops at the stomach. Explain. (1mk)
- b) State a factor that denatures enzymes. (1mk)
- c) Name the features that increase the surface area of small intestines. (2mks)
- 18 Define the following terms (5mks)
- a) Ingestion
  - b) Digestion

- c) Absorption
- d) Assimilation
- e) Egestion

19 Explain the role of the following organs in the digestion of food in a mammal.

- a) Salivary glands
- b) Pancrease
- c) Liver (3mks)

20 State any three functions of the mucus, which is secreted along the wall of the alimentary canal. (3mks)

21. Explain why the digestion of starch stops after food enters the stomach. (3mks)

22. Give an account of the adaptation of a named herbivore to its mode of feeding. (3mks)

23. What are the contents of gastric juice and what is their role in digestion. (6mks)

24. Liver damage leads to impaired digestion of fats . Explain the statement. (3mks)

25. For each of the following nutrients give one example of a good source and one example of its role in the body.

Nutrient	Food source	Role in the body
Vitamin A		
Iron		

Iodine		
Vitamin D		
Protein		

(10mks)