

THE BARINGO- KOIBATEK DISTRICTS

EDUCATIONAL IMPROVEMENT EXAMINATIONS-2009

231/3

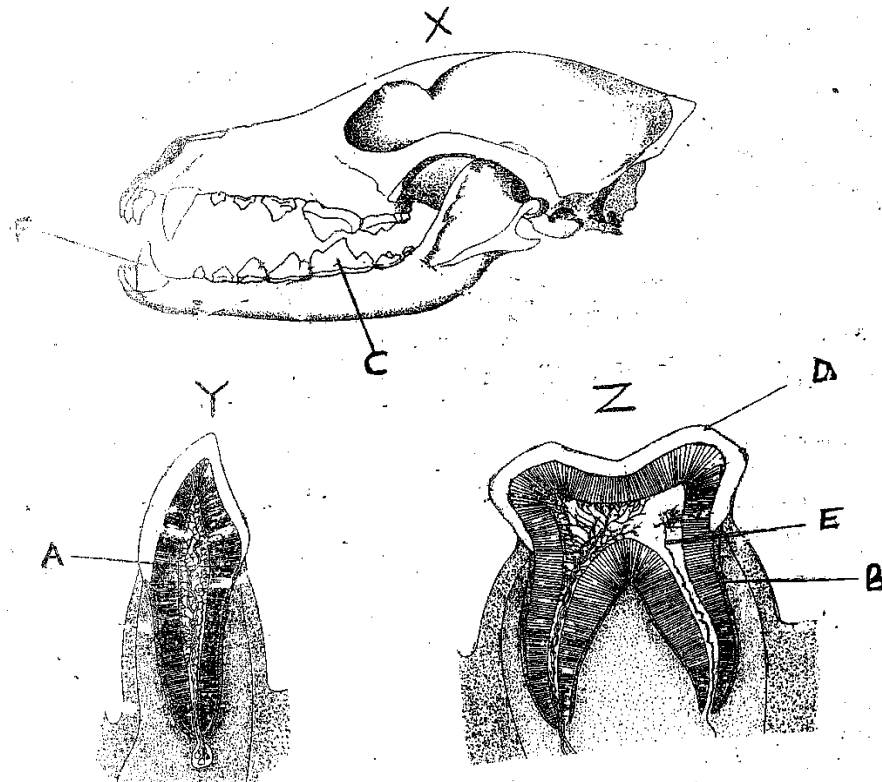
BIOLOGY(PRACTICALS)

PAPER 3

JULY/AUGUST-2009

TIME: 1 ¾ HOURS.

- 1 You are provided with diagrams of specimens taken from a mammal. Study them carefully and answer the questions that follow.

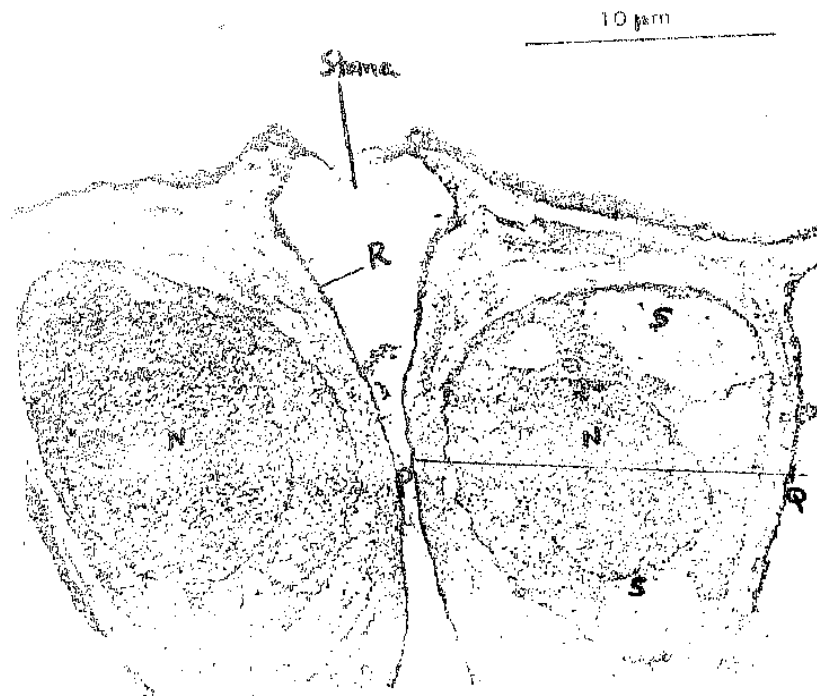


- (a) Identify the diagrams labeled below.

(3 marks)

X
Y
Z

- (b) State the diet of the animal from which diagram x was taken and give a reason for your answer. (2 marks)
- (i) Diet
- (ii) Reason (3 marks)
- (c) Name the parts labeled (3 marks)
- A
- B
- C
- (d) How are the following structures adapted to their functions (2 marks)
- D
- C
- (e) State the function of the parts labeled. (2 marks)
- (f) State **one** structural difference between Y and Z (1 mark)
2. Shown below is a photomicrograph of French bean (*Phaseolus* sp) leaf labeled D. Study it carefully and answer the questions that follow.



- (a) (i) Name the type of cells represented in the photomicrograph. (1 mark)
- (ii) Explain how the cells you have named above are adapted to their function. (2 marks)
- (b) In the photomicrograph, identify the parts represented by letter N, s and R (3 marks)
- Identify of N
- Identify of S
- Identify of R
- (c) Measure from p to Q and record your answer in (mm) (1mk)

(d) Using the scale given on the photomicrograph, calculate the actual diameter of the cell above in micrometers (um) (P to Q) (3 marks)

(e) What is the likely type of microscope used to observe the cell structure above? (1 mark)

(f) What is the name give to the cells adjacent to the cells above towards the right and left sides. (1 mark)

3. You are provided with specimen K.

Cut the specimen into two halves and crush one half into a paste using a mortar and pestle. To the paste add 8.0 cm³ of distilled water. Decant the liquid into a boiling tube. This is your stock solution.

(a) using the reagents provided carry out food test in the stock solution (12 marks)

Food	Procedure	Observation	Conclusion

(b) From the conclusion made above, what are the deficiency diseases a child is likely to suffer from? (2 marks)

(c) Compare the inner and outer leaves of specimen K using the other half. (1mark)