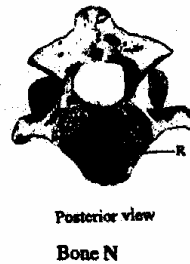
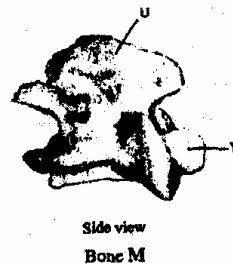
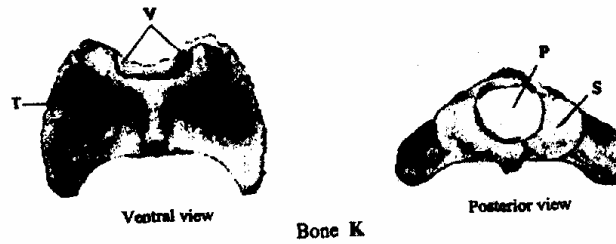


THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education
Biology Paper 3
Practical
2006

1. The photographs below are of bones obtained from the same region of a mammalian body. Photographs labelled K are different views of the same bone while M and N are views of different bones.



- (a) Name the region from which the bones were obtained. (1 mark)
- (b) Identify the bones. (3 marks)

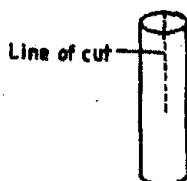
M

N

- (c) State three characteristic features of the bone in photographs labelled K. (3 marks)
- (d) Name the structures that fit in the opening labelled P in the photographs of bone K. (2 marks)
- (e) State the functions of the parts labelled S and T in photographs of bone K. (2 marks)
- (f) Name the structures that articulate with the parts labelled V in the photographs of bone K. (1 mark)

- (g) Name the parts labelled U and X in the photograph of bone M and R in the photograph of bone N. (3 marks)

2. You are provided with two pieces of plant material labelled specimen D. Using a scalpel cut a slit halfway through the middle of each piece as shown in the diagram below.



Place one piece in the solution labelled L₁ and the other in solution labelled L₂. Allow the set up to stand for 30 minutes.

- (a) After 30 minutes remove the pieces and press each gently between the fingers.
- Record your observations.
L₁ (1 mark)
L₂ (1 mark)
- (b) Examining the pieces.
- Record other observations beside those made in (a) (i) above. (3 marks)
 - Account for the observations in (a) (i) above. (5 marks)
 - Account for the observations in (b) (i) above. (2 marks)

3. You are provided with three sets of seedlings labelled A, B and C. Examine them.

- (a) State the conditions under which each set was grown. (3 marks)
- (b) State four differences between the seedlings in set A and B. (4 marks)
- (c) (i) Name the phenomenon exhibited by seedlings in set B. (1 mark)
- (ii) Give a reason why plants exhibit the phenomenon named in (c)(i) above. (1 mark)
- (d) Name the response exhibited by the seedlings in set C. (1 mark)
- (e) Explain how the response named in (d) above occurred. (3 marks)