Name: …… **Index no** ……..….....

School: ……..…. **Candidate's sign** ……....

Date: ……

231/3
BIOLOGY
PAPER 3
JULY /AUGUST 2011
TIME: 2 HOURS

NYAMIRA DISTRICT JOINT EVALUATION TEST

Kenya Certificate of Secondary Education (K.C.S.E.)

Biology
Practical

INSTRUCTIONS TO CANDIDATES:

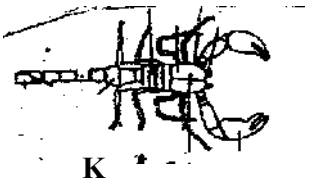
- *Write your **name** and **index number** in the spaces provided.*
- *Sign and write **date** of examination in the spaces provided above*
- *Answer **all** the questions in section **A** and **B***
- *You are required to spend the first 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully.*

For Examiner's Use Only:

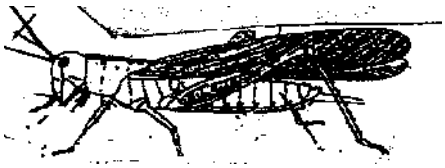
QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
1		
2		
3		
TOTAL	**40**	

This paper consists of 4printed pages. Candidates should check to ascertain that all papers are printed as indicated and that no questions are missing

1. Specimen's **J, K** and **L** are photographs of animals. Specimen's **J** and **K** belong to same phylum.



K



J

a) Using observable features, state the phylum of specimen J and K.
Phylum : (lmk)

Features (2mks)

b) (i) Using observable features only, state the class to which the photograph of specimen **J** belong. (3mks)
Class:

Feactures:

(ii) State the mode of feeding of specimen K. (lmk)
……

……

(iii) Give a reason for your answer in b(ii) above. (1mk)
……

……

(iv) State the ecological role played by specimen K in its habitat. (lmk)
……

……

c) (i) State the class to which specimen **L** belongs. (lmk)
……

……

(ii) Give **two** reasons for your answer in c(i) above. (2mks)

……

……

(iii) State how specimen L is adapted for survival in its habitat. (2mks)

……

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2. You are provided with a portion of an anion bulb.
- Remove one freshly leaf from the portion,
- Peel the epidermis from the inner surface of the leaf,
- Place it on a drop of water on a slide,
- Place a cover slip on the epidermis,
- Place a drop of iodine at one edge of the coverslip. Drain-off excess iodine solution and water from opposite edge of the cover slip with a blotting paper,
- Observe the epidermis under low power, then under medium power.

a) Draw and label two neighbouring cells. (5mks)

Magnification …….. (lmk)

b) Why was staining of the epidermis necessary? (lmk)

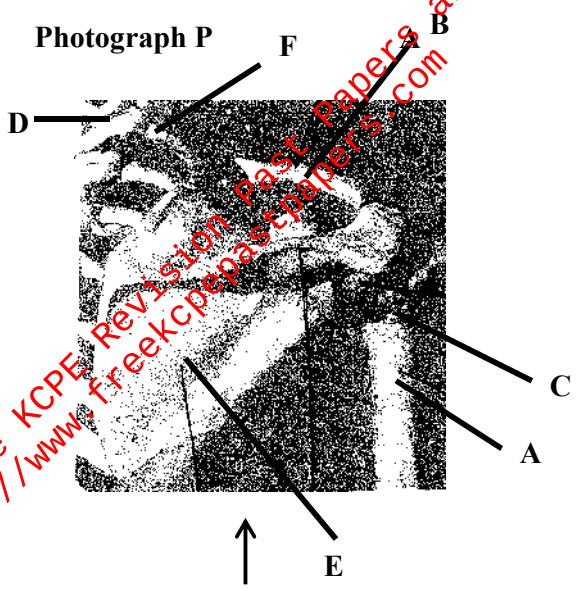
……

……

c) Work out the length and width of one cell as seen under medium power. (6mks)

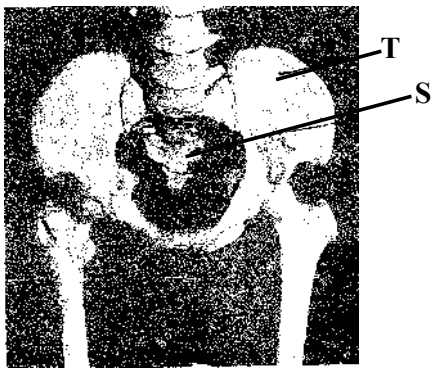
3. You have been provided with two photographs P and Q from the mammalian body. Study them carefully then answer questions below.

Photograph P



Right view

Photograph Q



Right view

a). Label on the diagram parts **A, B, C, D, E** and **F** on photograph **P**. (6mks)

b). Identify bone **S** and **T** on photograph Q.

i. **S** _____ (1mk)

ii. **T**_____ (1mk)

c). State how the part labelled **S** is adapted to its function. (3mks)

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