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 ¼ hours allowed for this paper reading the whole paper carefully.

For Examiner’s Use Only:

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<th>QUESTIONS</th>
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<td>TOTAL</td>
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This paper consists of 4 printed pages. Candidates should check to ascertain that all papers are printed as indicated and that no questions are missing.

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

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:

Features:

(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)

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(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 ................................................................. (1mk)

b) Why was staining of the epidermis necessary? (1mk)

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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

A

B

C

D

E

F

Photograph Q

Right view

S

T

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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