

NAME:.....INDEXDATE.....

SCHOOL:.....SIGNATURE.....

231/3
BIOLOGY
PAPER3
JULY / AUGUST, 2010
2 HOURS

JOINT INTER-SCHOOLS EVALUATION TEST (JISSET) Kenya Certificate of Secondary Education 2010

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BIOLOGY
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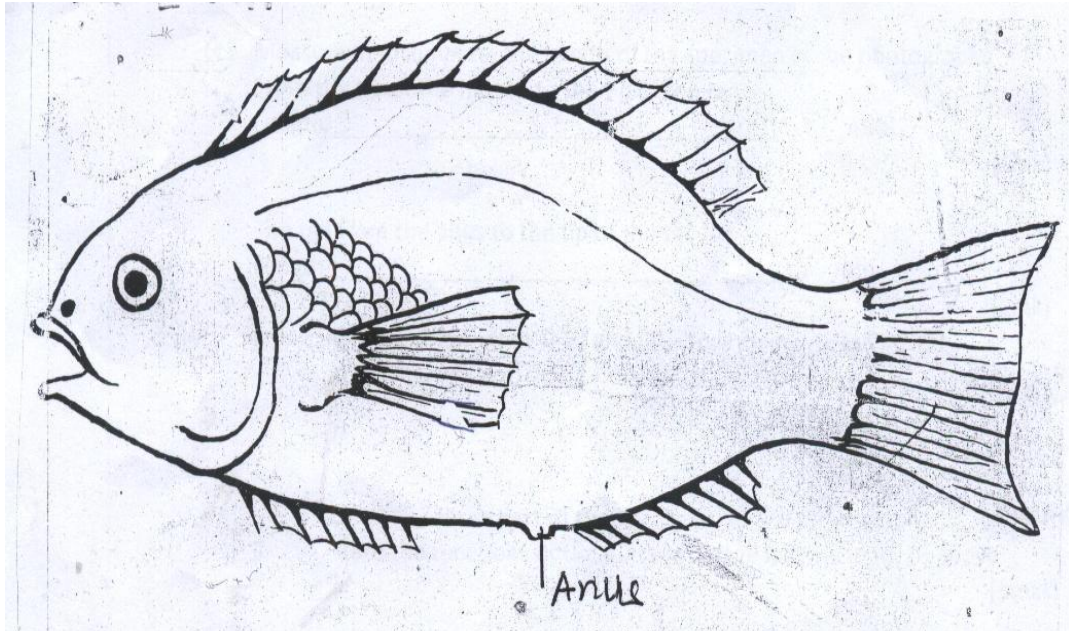
INSTRUCTIONS TO CANDIDATES

- ❖ Write your name and index number in the spaces provided above
- ❖ Answer all questions in this paper in the spaces provided

For Examiner's Use Only

Question	Maximum Score	Candidates' Score
Q1	14	
Q2	16	
Q3	10	
Total	40	

The photograph below is of a certain organism. Study it and answer the questions that follow



1. Using observable features only, name

i. The class to which the organism represented in the photograph belongs (1mk)

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ii. Give two reasons for your answer in

a) (i) Above (2 mks)

.....

b) What term is used to describe the shape of the organism in the photograph (1 mk)

.....

c) Measure in millimeters the length of the specimen in the photograph

(i) From the tip of the mouth to the tip of the tail

Length-----mm (1 mk)

(ii) The tail from the anus to the tip of the tail

Length-----mm (1 mk)

(iii) Using the measurement in (c) (i) and (ii) above calculate the tail power

(3 mks)

d) (i) Label three parts of the specimen on the photograph

(3 mks)

(ii) State the functions of the parts you have labelled in (d) (i) above (3 mks)

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2. You are provided with specimens labelled D_1 and D_2 which are pieces of stems obtained from different plants

a) (i) Make very thin transverse sections through the stem of specimen D_1 using a sharp razor blade. Mount the thinnest section on a glass slide and a drop of Lungol's iodine. Observe using a hand lens then draw and label a plan diagram of the section (5 mks)

(ii) Repeat the procedure with a section of specimen D_2 . Draw and label a plan diagram of the section (3 mks)

b) Account for distribution of the blueblack colour in the section (1 mk)

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c) State the functions of any three sections that you have labelled in (b) (i) above (3 mks)

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.....

d) State with reason in each case, the class of plants from which the pieces of stems were obtained (4 mks)

D₁

Class.....

Reason.....

D₂

Class.....

Reason.....

e) (i) What was the purpose of staining with iodine (1 mk)

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.....
.....

(ii) Why was the section placed in water? (1 mk)

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.....

(iii) Why were the sections cut very thin? (1 mk)

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(iv) What was the purpose of using a sharp razor blade? (1 mk)

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3. You are provided with a specimen labelled P, examine it carefully and answer the questions that follow.

a) With a reason for your answer, state the type of fruit it is

Type of fruit----- (1 mk)

Reason ----- (1 mk)

b) Squeeze out 20ml of juice from the specimen P into a beaker. Using the reagents provided, carry out food tests for the food substances in the juice (8 mks)

Food substance	Procedure	Observations	Conclusion

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