

Name:
School:
Signature.....

Adm. No:
Date:

231 / 3
BIOLOGY
FORM FOUR
PAPER 3 - PRACTICAL
MARCH/APRIL - 2013
TIME: 1³/₄ HOURS

ELDORET EAST INTER - SCHOOLS TEST - 2013
Kenya Certificate of Secondary Education (K.C.S.E.)
BIOLOGY PAPER 3.

INSTRUCTIONS TO CANDIDATES

- √ Write your name, Adm number and sign in the spaces provided above.
- √ You are required to spend the first 15 minutes of the 1³/₄ hours of time allocated reading whole paper carefully before commencing your work.
- √ All answers **must** be written in the spaces provided in the question paper.
Additional pages **MUST** not be inserted.

FOR EXAMINERS USE ONLY

Questions	Maximum Score	Candidates Score
1	13	
2	14	
3	13	
Total Score	40	

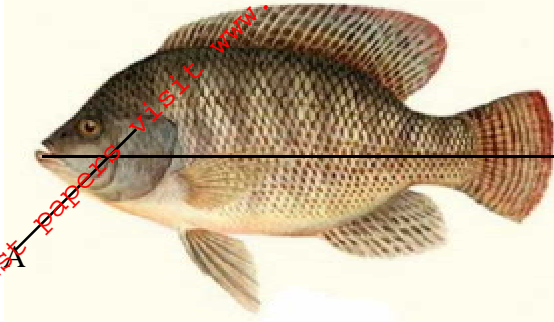
*This paper consists of 4 printed pages.
Candidates should check the question paper to ascertain that
all the pages are printed as indicated and that no question is missing.*

- 1 You are provided with liquid X and substance Q.
- a) Place three drops of liquid X into a white tile. Add four drops of iodine solution and record your observation. (1 mark)
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- b) Pour 2 ml of liquid X in a test tube. Add 2 ml of Benedict's solution, boil the mixture. Record your observation. (1 mark)
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- c) Label three test tubes as set ups A, B and C. Place 3 ml of liquid X into each of the set ups. Divide substance Q into three portions.
- To set up A add one portion of substance Q and shake.
- Place the second portion of substance Q into a test tube. Add 1 ml of water to it and boil for four minutes. Add it to set up B and shake.
- To set up C, Add a third portion of substance Q. Add 8 drops of 1 m HCl and shake.
- Place the three set ups in a warm water bath maintained at 37°C for 30 minutes. Cool the set up by dipping the boiling tubes in cold water.
- Place 2 ml of the contents of each set up into three separate test tubes.
- Add equal amount of Benedicts solution to each of the three test tubes and boil.
- Record your observations;
- Set up A (1 marks)
-
- Set up B (1marks)
-
- Set up C (1marks)
-
- d) Account for your observations in the set up:-
- Set up A. (marks)
-
- Set up B. (2 marks)
-
- Set up C. (2marks)
-
- e) Give the most likely identity of substance Q (2marks)
-
- f) Why was the water bath maintained at 37°C (1 marks)
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g) What is the fate of the product of set up A in an organism? (1 mark)

h) Name a part in a seed where the process you have named in (g) above occurs. (1 mark)

2. You are provided with specimen G in the photograph below.



a) Identify the phylum and class to which the specimen belongs. (2 marks)

b) Name and state function of part labelled A. (2 marks)

c) Draw a labelled diagram of organ protected by A. (3 marks)

d) State three adaptation of the organ drawn in C above. (3 marks)

e) What is the importance of the following features to daily survival of specimen G.

i) Silvery pigment (1 mark)

ii) Secretion of mucus beneath the scales (1 mark)

3 a) Using the photograph of specimen shown below, answer the questions that follow.



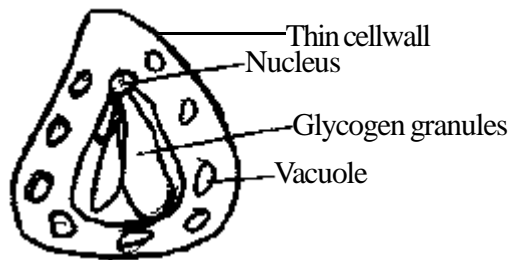
- i) State the method of dispersal of the above specimen and give a reason for your answer. (2 marks)

- b) Use figure A and B shown below of fruit types to answer the questions that follow.



- i) Name the type of fruit shown by figure A. (1 mark)
- ii) What type of placentation and gynoecium does fruit B exhibit. (2 marks)
- iii) Identify one feature that adapts fruit A to its agent of dispersal. (1 mark)

- c) The diagram below represents a living organism



- i) State the type of asexual reproduction the above organism exhibits. (1 mark)
- ii) Briefly describe how the above named type of reproduction takes place. (4 marks)
- iii) Other than physical environmental conditions give one condition necessary for the above named type of asexual reproduction to take place. (1 mark)
