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 1 3/4 hours of time allocated reading whole paper carefully before commensing 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

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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)

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)

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)
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.

![Fruit diagrams](image.png)

i) Name the type of fruit shown by figure A.

(1 mark)

___________________________________________________________________

ii) What type of placentation and gynoeicum 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

![Diagram of an organism](image.png)

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)

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iii) Other than physical environmental conditions give one condition necessary for the above named type of asexual reproduction to take place.

(1 mark)

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