NAME: …… INDEX NO: .....

SCHOOL…….. DATE……

CANDIDATE'S SIGN……..……

231/3
BIOLOGY
PAPER 3
JULY/AUGUST 2014
TIME: 1 ¾ HOURS

KISUMU WEST SUB-COUNTY JOINT EVALUATION EXAM-2014

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

BIOLOGY
PAPER 3

INSTRUCTIONS TO CANDIDATES

- *Write your **name** and **index number** in the spaces provided above.*
- ***Sign** and write the **date** of examination in the spaces provided above.*
- *You are required to spend the first 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully before commencing your work.*
- *Answers must be written in the spaces provided in the question paper.*

For Examiner's Use only:-

Question	Maximum Score	Candidate's Score
1	14	
2	12	
3	14	
TOTAL	40	

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

1. You are provided with two **solids A** and **B** .Place all **solid A** into a boiling tube, and add 10ml of distilled water. Label the resulting mixture as **solution A**. Divide the solution **A** into equal portions in three separate test tubes all labelled **A**, each of which will be used for a food test in the table below.

Place all **solid B** into a boiling tube, and add 10ml of distilled water. Label the resulting mixture as **solution B.** Divide the solution **B** into equal portions in three separate test tubes all labelled **B**, each of which will be used for a food test in the table below.

a) Using the reagents provided carry out food tests to determine the food substances present in solutions **A** and **B** in each of the test tubes. In each case, record the food substance tested for, procedure followed, observation and conclusion made in the table below. (9mks)

Solution	Food substance	Procedure	Observation	Conclusion
A				
B				

(b) (i) Which of the **two** solids would be appropriate to be included in a diet of a family whose children suffer from Kwashiorkor? (1mrk)

……

(ii) Give a reason for your answer in (b) (i) above (1mrk)

……

……

c) (i) Name the part of the digestive system where digestion of the food substance(s) found in solid **B** starts (1mrk)

……

(ii) Name the enzyme which starts the digestion of the food substance in solid **B.** (1mrk)

……

d) State **one** way in which the food substance in solid **A** is important to living organisms. (1mrk)

……

……

2. You are provided with specimens labelled **P, Q** and **R**

(a) Cut **specimen P** transversely so as to obtain two identical halves. Draw and label the cut surface of one half (3mrks)

b) (i) Name the type of the dehiscent fruit represented by **specimen Q** (1mrk)

……

(ii) Identify the type of placentation found in **specimen Q** (1mrk)

……

(c) Describe the various features of the following parts of **specimen R**, other than colour and smell

(i)Corolla (3mrks)

……

……

……

(ii)Gynoecium (3mrks)

……

……

……

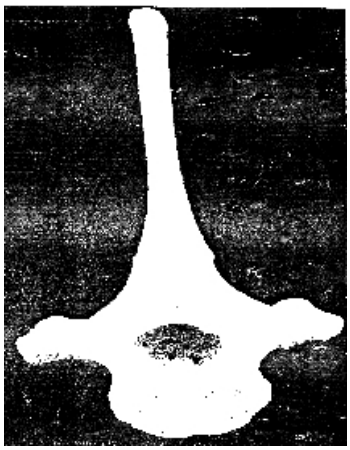
d) Name the division to which **specimen R** belongs (1mrk)

……

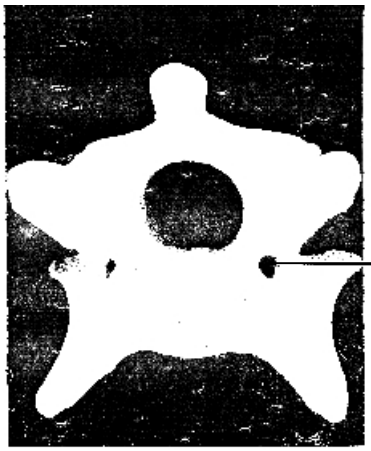
……

(3) Below are **photographs I ,II** and **III** of anterior view of three different types of vertebrae obtained from the same mammal. Study them carefully and answer the questions that follow;

PHOTOGRAPH I



PHOTOGRAPH II



PHOTOGRAPH III

(a)Identify each of the vertebrae. Give a reason in each case.

(i) Vertebra in **photograph I** ……..

Reason……..(1mrk)

(ii) Vertebra in **photograph II** ..... (1mrk)

Reason.....(1mrk)

(iii) Vertebra in **photograph III**.....

Reason..... (1mk)

(b) State **three** differences between the vertebrae in **photographs I** and **II** (3mrks)

……

……

……

……

(c)Identify the part labelled **G** in the vertebra in **photograph III** (1mrk)

……

(d) Name the region of the body of the mammal from which the vertebra in **photograph III** was obtained. (1mk)

……

(e) Explain how the vertebra in **photograph I** is normally adapted to perform its function (3mrks)

……

……

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