Name……Index No……

ADM No……

Student's Signature……

Date……

231/3
BIOLOGY
Paper 3
(Practical)
July/August 2013
1¾ hrs.

SUBUKIA DISTRICT JOINT EXAMINATION

Kenya Certificate of Secondary Education
BIOLOGY
Paper 3
(Practical)
July/August 2013
1¾ hrs.

Instructions

*(a) Write your **name, index** and **admission numbers** in the spaces provided at the top of this page.*
(b) Sign and write the date of examination in the spaces provided above.
*(c) Answer **ALL** the questions.*
(d) You are required to spend the first 15 minutes of the 1¾ hours allowed for this paper reading the whole paper carefully before commencing your work.
*(e) Answers **MUST** be written in the spaces provided in this question paper.*
*(f) Additional pages **MUST NOT** be inserted.*
(g) This paper consists of six (6) printed pages.
(h) Check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

For Examiner's Use Only

Question	Maximum Score	Candidate's Score
1	12	
2	16	
3	12	
Total Score	**40**	

1. You are provided with a solution labeled **P**. Using the reagents provided, determine food compounds in **P**. Fill in the table below.

FOOD SUBSTANCE	PROCEDURE	OBSERVATION	CONCLUSION

12MARKS

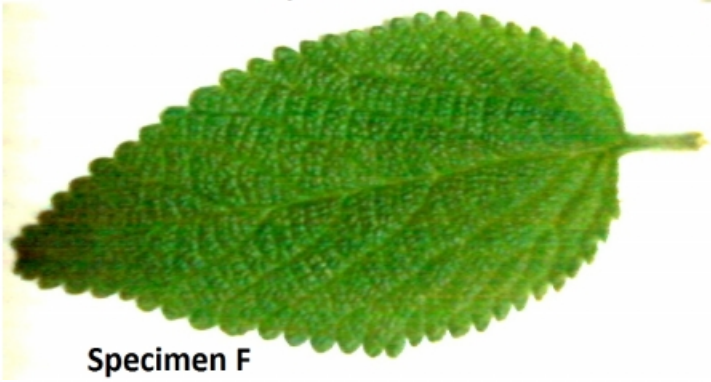
2. The diagrams below represent leaves of certain plants.


Specimen A


Specimen B


Specimen C


Specimen D


Specimen F


Specimen E


Specimen G

(a) Use the above specimens to complete the dichotomous key below. *(3 mks)*

1. (a) Leaf simple ..... go to 2
   (b) Leaf compound ..... go to 4
2. (a) Leaf with parallel veins ..... Wondering jew
   (b) Leaf with _____ ..... go to 3
3. (a) Leaf with smooth margin ..... Devil's horse whip
   (b) Leaf with _____ ..... Tick berry
4. (a) Leaf trifoliate ..... go to 5
   (b) Leaf with more than three leaflets ..... Go to 6
5. (a) Leaflets with sharp tips ..... Bean
   (b) Leaf with rounded tips ..... Oxalis

6 (a) Leaf pinnate ..... Cassia
   (b) Leaf _____ ..... Acacia

(b) Use the dichotomous key above to fill the table below. *(14 mks)*

Specimen	Steps	Identity
A	.....	.....
B	.....	.....
C	.....	.....
D	.....	.....
E	.....	.....
F	.....	.....
G	.....	.....

3. Examine the photographs in plates 1 to 3 which show a mammalian organ and answer the questions that follow.

Plate 1

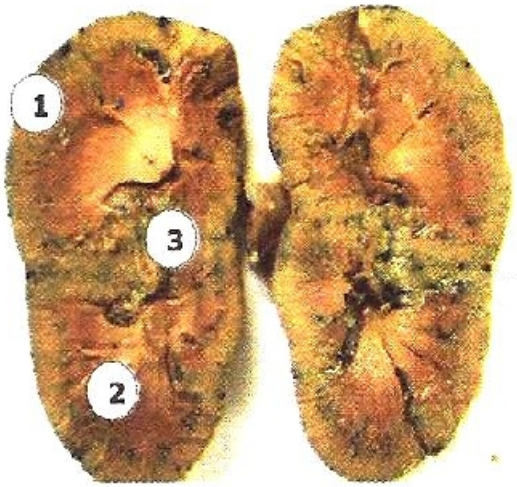


Plate 2

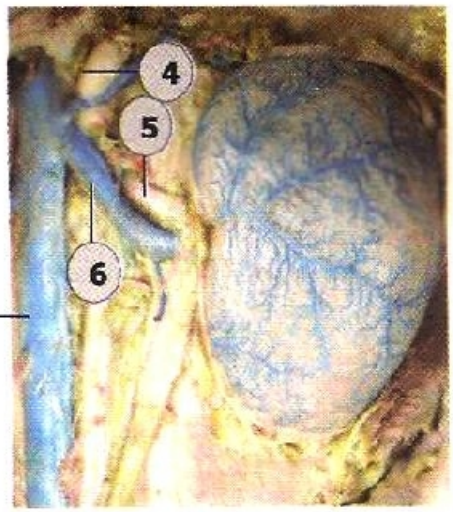


Plate 3

(a) The photograph in **plate 2** shows the longitudinal section of the organ.

(i) Name each of the parts labeled 1 and 3. *(2 mks)*

1
……

3
……

(ii) Name the processes that occur in each of the parts labeled **1** and **2**. *(2 mks)*

1
……

2 ……

(b) The photograph in **plate 3** shows the blood supply to the organ.

(i) Name each of the blood vessels labeled **4** and **6**. *(2 mks)*

4 ……

6 ……

(ii) State ***one*** difference in the composition of blood in blood vessel **5** and blood vessel **6**. *(1 mks)*

……

……

(c) Name ***one*** disease that affect the organ. *(1 mks)*

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