

NAME.....INDEX NO.....

SCHOOL.....DATE.....

SIGN.....

231/3  
BIOLOGY  
PAPER 3  
PRACTICAL  
JUNE/JULY 2014  
TIME: 1  $\frac{3}{4}$  HOURS

**NAKURU DISTRICT SECONDARY SCHOOLS TRIAL  
EXAMINATION - 2014**  
*Kenya Certificate of Secondary Education*

**INSTRUCTIONS TO CANDIDATES**

- Write your name and index number in the spaces provided at the top of this page
- Answer ALL questions
- You are required to spend the first 15 minutes of the 1  $\frac{3}{4}$  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
- Additional pages **must not** be inserted.

**FOR EXAMINERS USE ONLY**

Question	Maximum score	Candidate 's score
1	17	
2	10	
3	13	
Total score	40	

1. You are provided with a specimen labeled **S**

(a) Classify the specimen into the following taxa

(i) Division .....(1 mark)

ii) Class.....(1 mark)

iii) Using observable features give a reason to your answer in a(ii) above (1 mark)

.....  
.....

(b) Separate the aerial leaves and roots from the bulb. Using a pestle and mortar, crush the

aerial leaves, bulb and roots separately.

To each crushed material add **1 ml** of distilled water. Put the extract from the materials into separate test tubes and label them. Using the reagents provided, test for the food substances in each of the extracts. Record the procedure, observation and conclusions in the table below.

(8 marks)

Extract	procedure	observation	conclusion
Aerial leaves			
Bulb			
Roots			

(c) Account for the results obtained in (b) above

(i) Aerial leaves

.....  
.....  
.....

(ii) Bulb

(2 marks)

.....  
.....  
.....

(iii) Roots

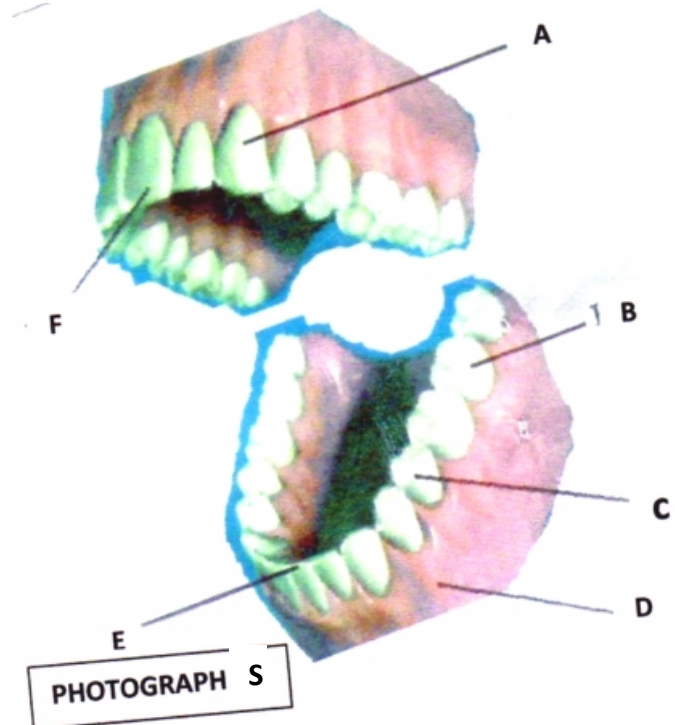
(2 marks)

.....  
.....  
.....(2 marks)

2 Study the photographs P, Q and S and use them to answer the questions that follow.



PHOTOGRAPH Q





Photograph P

(a) Photographs **P** and **Q** are teeth of animals in an ecosystem. Which tooth represents the animal that depends on the other for food?

..... (1 mark)

(b) Identify tooth **Q**..... (1 mark)

(c) State one functional difference between tooth **P** and **Q**. (1 mark)

.....

(d)(i) Name the labeled parts **F** and **A** in photograph **S** (2 marks)

F: ..... A: .....

(ii) Name one common disease that affects part **D**..... (1 mark)

(e) Identify the type of dentition shown in photograph **S** (1 mark)

.....

Reason .....

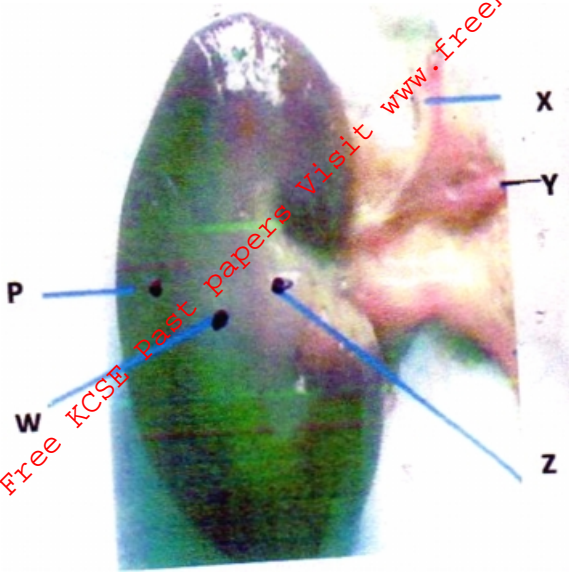
(f) Write the dental formula from photograph **S** above (2 marks)

.....

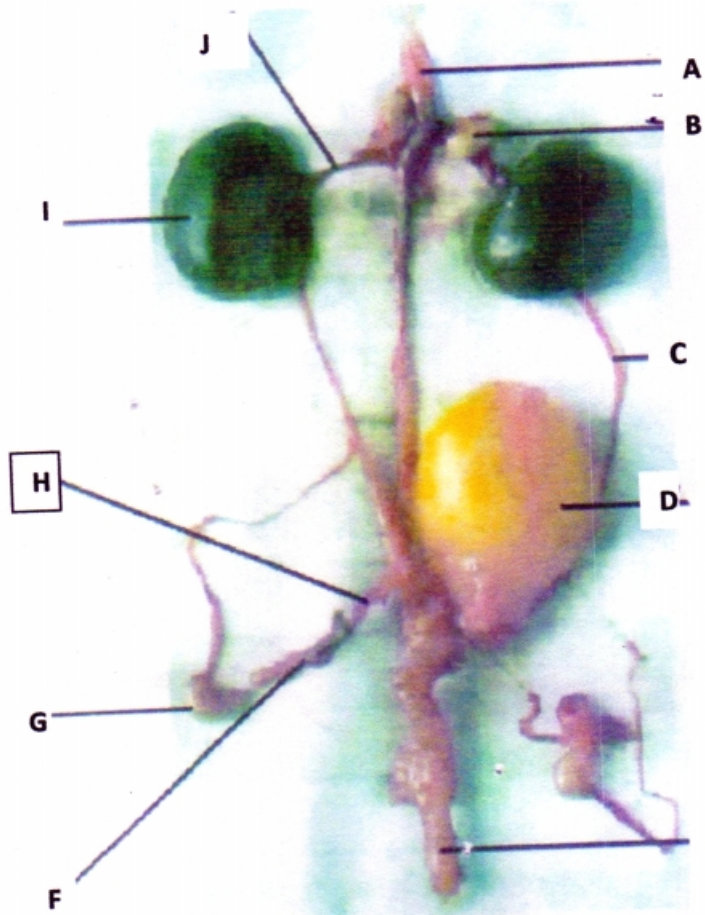
.....

.....

3 The photographs **A** and **B** below represent part of urino-genital system in rabbits.



**Photograph A**



**Photograph B**

Study them to answer the questions that follow

(a) Using photograph **B**;

(i) Name the parts labeled

**F**..... **C**.....

**I**.....

(ii) Name and state the functions of the parts labeled **B** and **G** (4 marks)

**B**.....

Function .....

**G**.....

Function .....

(iii) Name the fluid found in part labeled **D**..... (1 mark)

(b) Study photograph **A** carefully.

(i) Name part **Z**..... (1 mark)

(ii) Differentiate between the contents in the structure **X (Renal artery)** and **Y (Renal vein)** (2 marks)

.....

.....

.....

(c) Which parts of the nephron are found in the region labeled **W** (2marks)

.....