NAME _____ INDEX NO. _____

SCHOOL _____ SIGNATURE _____

DATE _____

231/3
BIOLOGY
Paper 3
(PRACTICAL)
July/August, 2015
TIME: 1¾ HOURS

KITUI WEST, MATINYANI, MUMONI & TSEIKURU SUB-COUNTIES

FORM FOUR JOINT EXAMINATION, 2015

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

BIOLOGY
Paper 3
(PRACTICAL)
TIME: 1¾ HOURS

INSTRUCTIONS TO CANDIDATES

1. Write your name, school and index number in the spaces provided above.
2. Write the date of examination and sign in the spaces provided above.
3. You are required to spend the first 15 minutes of the 1¾ allowed for this paper reading the whole paper carefully before commencing your work.
4. Answer **all** the questions in spaces provided.
5. Additional pages must not be inserted.
6. Candidates may be penalized for recording irrelevant information and for incorrect spellings especially of technical terms.
7. This paper consists of **5** printed pages.
8. Candidates should check to ensure that all pages are printed as indicated and no questions are missing.

FOR OFFICIAL USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	10	
2	14	
3	16	
TOTAL SCORE	40	

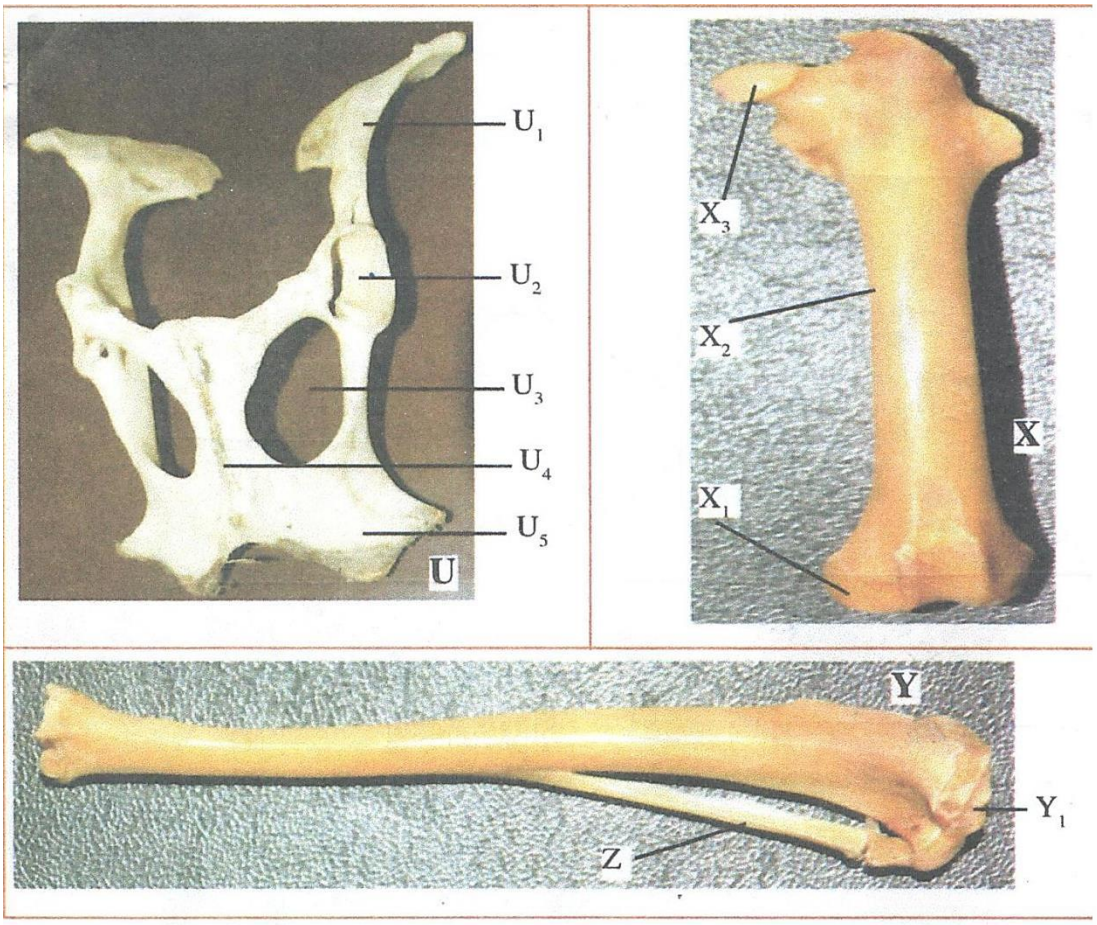
1. You are provided with specimen K_1. Examine the specimen.

a) Given that the specimen K_1 is a modified stem, draw and label a diagram of the specimen showing observable features which support this view. (4 marks)

b) Using a mortar and a pestle crush a piece of specimen K_1 and use the resulting pulp to test for the food substances present using the given reagents provided. (6 marks)

Food substance	Procedure	Observation	Conclusion

2. You are provided with photographs of specimen U, X, Y and Z



a) Name the bones labelled U_1, U_2, U_5, X, Y and Z where each is located in the mammalian body.

(10 marks)

Bone labelled	Bone identity	Location in the mammalian body
U_1		
U_4		
U_5		
X		
Y		

b) Name the joint formed at the proximal end of bone X and its distal end. (2 marks)

i) Proximal end _____

ii) Distal end _____

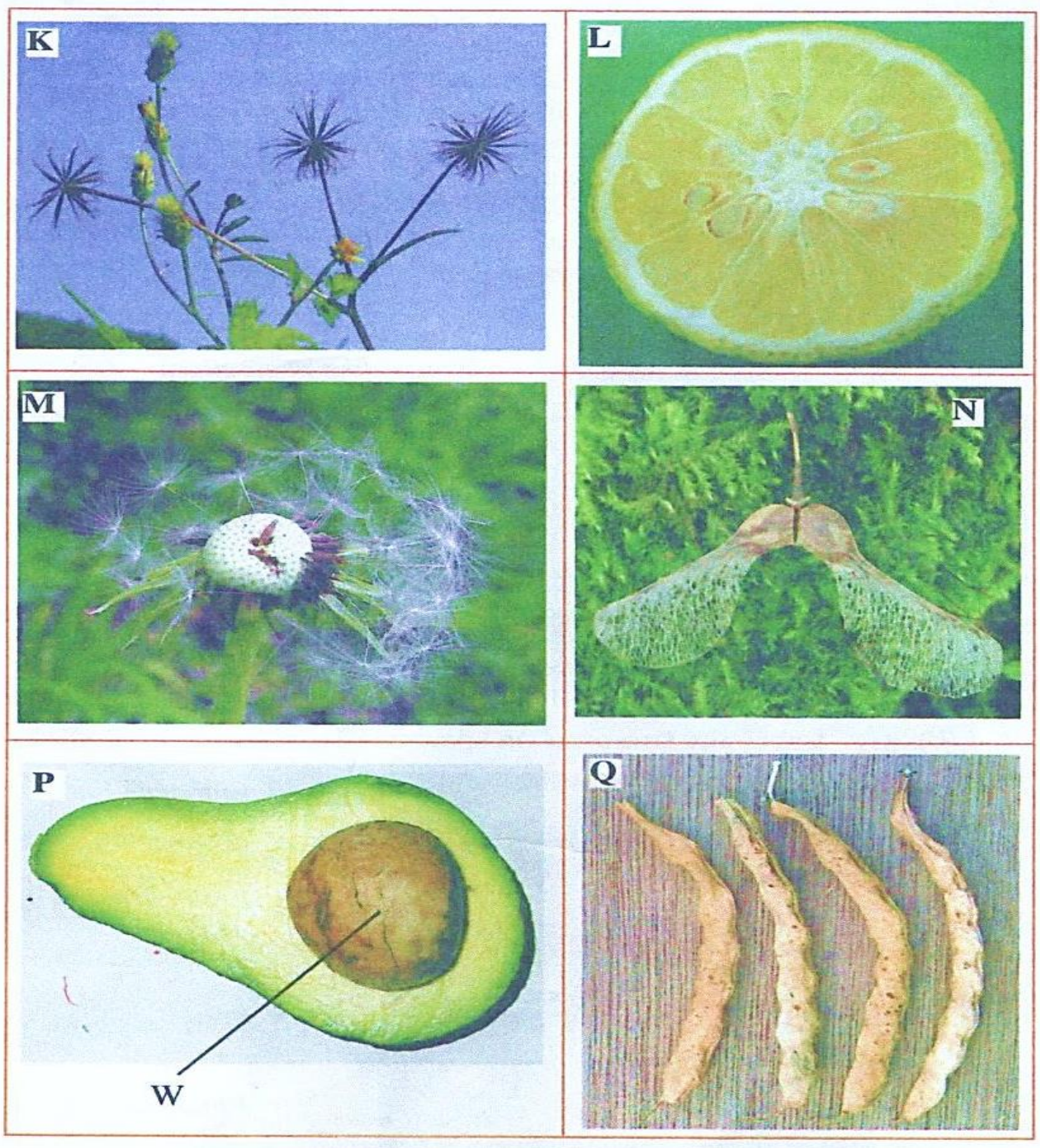
c) Name the structures that join the bones together at the joint formed between X_1 and Y_1. (1 mark)

_____

d) Name the structure at the elbow that performs same function as the patella (1 mark)

_____

3. Below are photographs of specimens obtained from plants. Examine the photographs.



a) In the table below name the mode of dispersal and feature that adapt the specimen(s) to that mode of dispersal . (12 marks)

Specimen	Mode of dispersal	Adaptive features

b) i) Label any **two** parts on specimen L. (2 marks)

ii) State the type of placentation in specimen L. (1 mark)

_____

_____

c) Name the structure labelled W on specimen P. (1 mark)

_____

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