MANGU MOCK TRIAL 3

BIOLOGY

231/3

PAPER 3

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

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 the questions in the spaces provided.*

FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1.		
2.		
3.		
TOTAL	40	

Answer all the questions in the spaces provided.

1. You are provided with a specimen labeled Q.

(a) Examine the outer and inner leaves of the bulb

(i) Record the differences between them. **(1 mk)**

(ii) Give reasons for the differences in a(i) above. **(1 mk)**

(b) Separate the roots and aerial leaves from the bulb. Crush the roots, aerial leaves and the bulb separately. To each crushed material, add 1ml of water. Put the extract from the material into separate test tubes and label them. Using the reagents provided, test for the food substances in each of the extracts. Record the procedure, observations and conclusions in the table below. **(9 mks)**

Extract	Procedure	Observations	Conclusions
Roots			
Bulb			
Aerial leaves			

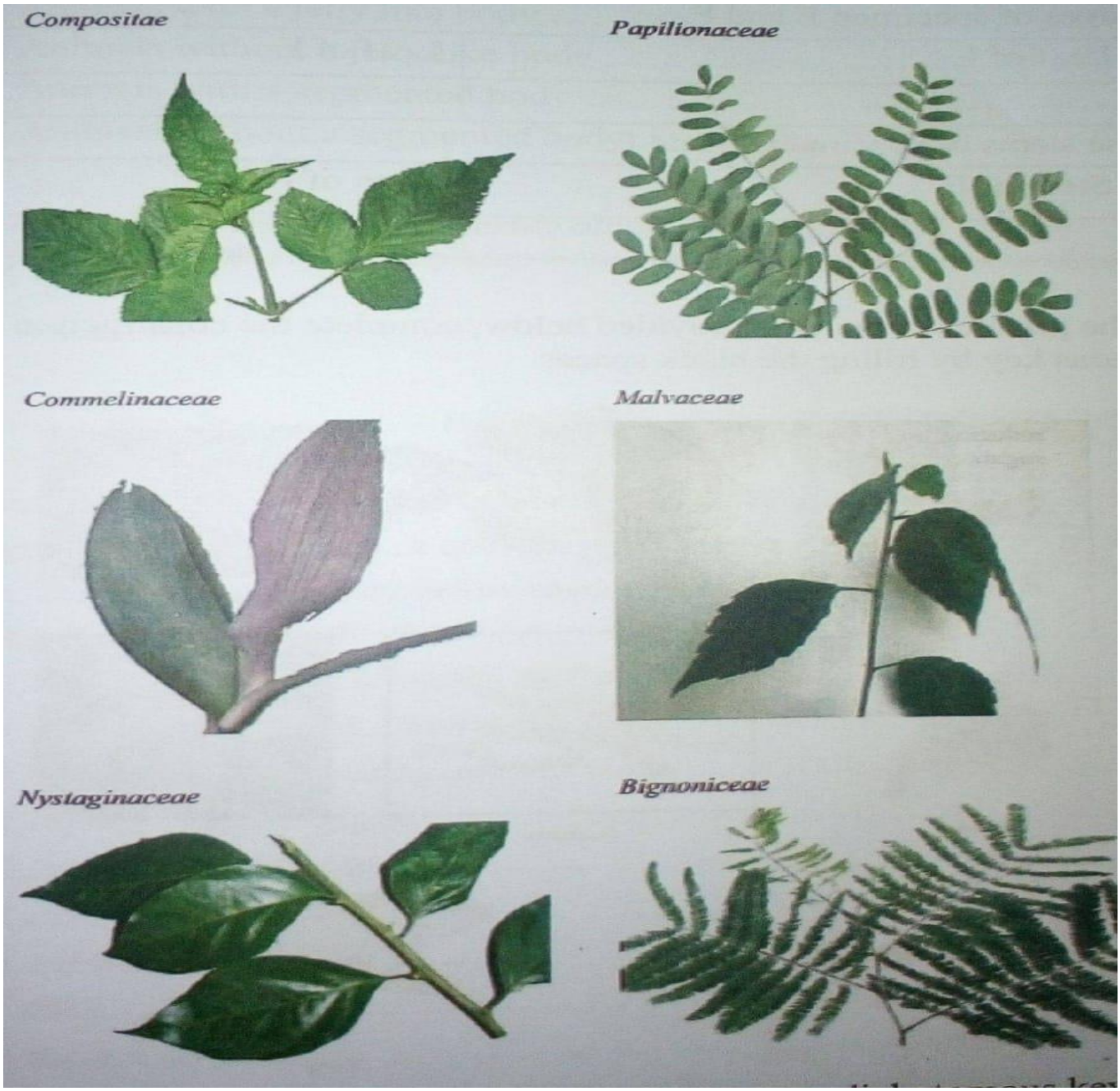
(c) Account for the results obtained in (b) above.

(i) Roots **(2 mks)**

(ii) Bulb **(2 mks)**

(iii) Aerial leaves **(2 mks)**

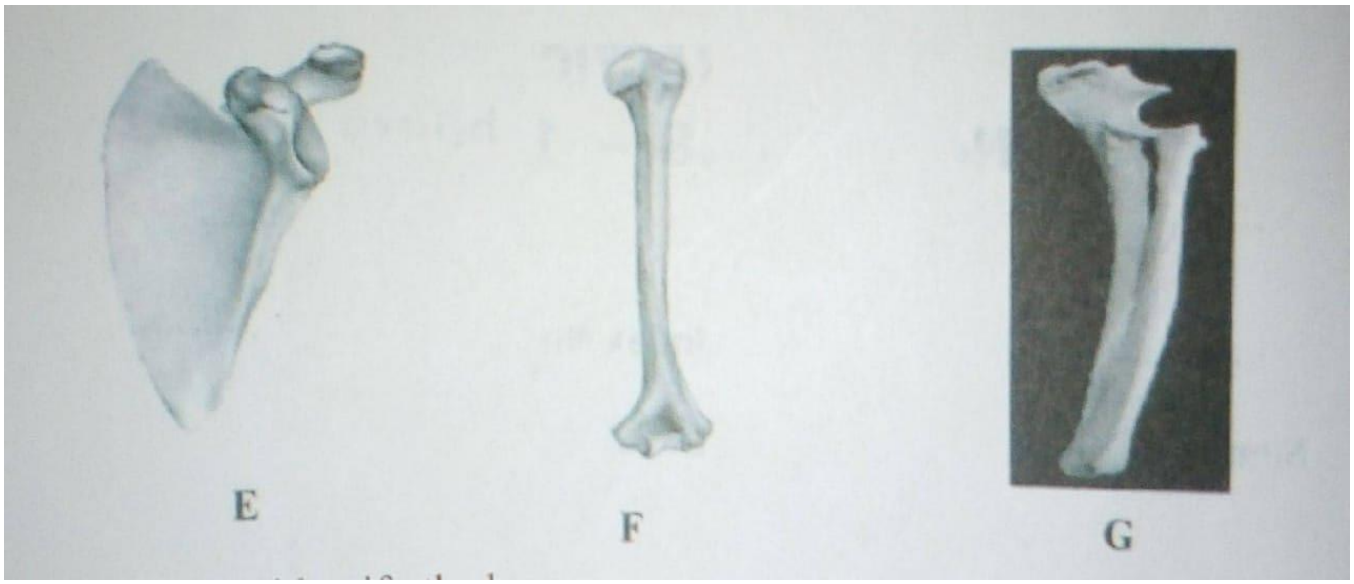
2. Below are photographs of some observable features of leaves.



Using the features in the order given below, construct a dichotomous key that can be used to identify the specimens.

- Simple or compound leaves
- Leaf variation
- Leaf margin
- Arrangement of leaves on the stem.

3. The photographs below represent three mammalian bones labeled E, F and G.



(a) With reasons, identify the bones. **(6 MKS)**

Bone	Identity	Reason(s)
E		
F		
G		

(b) Name the joints formed at the anterior and posterior ends of F.

(i) Anterior end **(1 mk)**

(ii) Posterior end **(1 mk)**

(c) State the type of movement facilitated by the joint at the anterior end of specimen labeled F. **(1 mk)**

(d) (i) Name the substance found inside the living tissue of the specimen represented in photograph F. **(1 mk)**

(ii) State the function of the substance named in d(i) above. **(1 mk)**

(e) (i) Name the muscle bundle usually attached onto the front of the specimen represented in photograph F. **(1 mk)**

(ii) State the function of the muscle bundle named in (e) (i) above. **(1 mks)**