

NAME: INDEX NO:

SCHOOL: CANDIDATE'S SIGNATURE:

DATE :

231/3
BIOLOGY
PAPER 3
(PRACTICAL)
TIME: 1 ¾ HOURS
KCSE MOCKS 2017

INSTRUCTIONS TO CANDIDATES:

- (i) Write your **Name** and **Index Number** in the spaces provided.
- (ii) **Sign** and write the **Date** of Examination in the spaces provided.
- (iii) Answer all the questions in the spaces provided.
- (iv) 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.
- (v) Additional pages must not be inserted.
- (vi) This paper consists of 3 printed pages.
- (vii) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

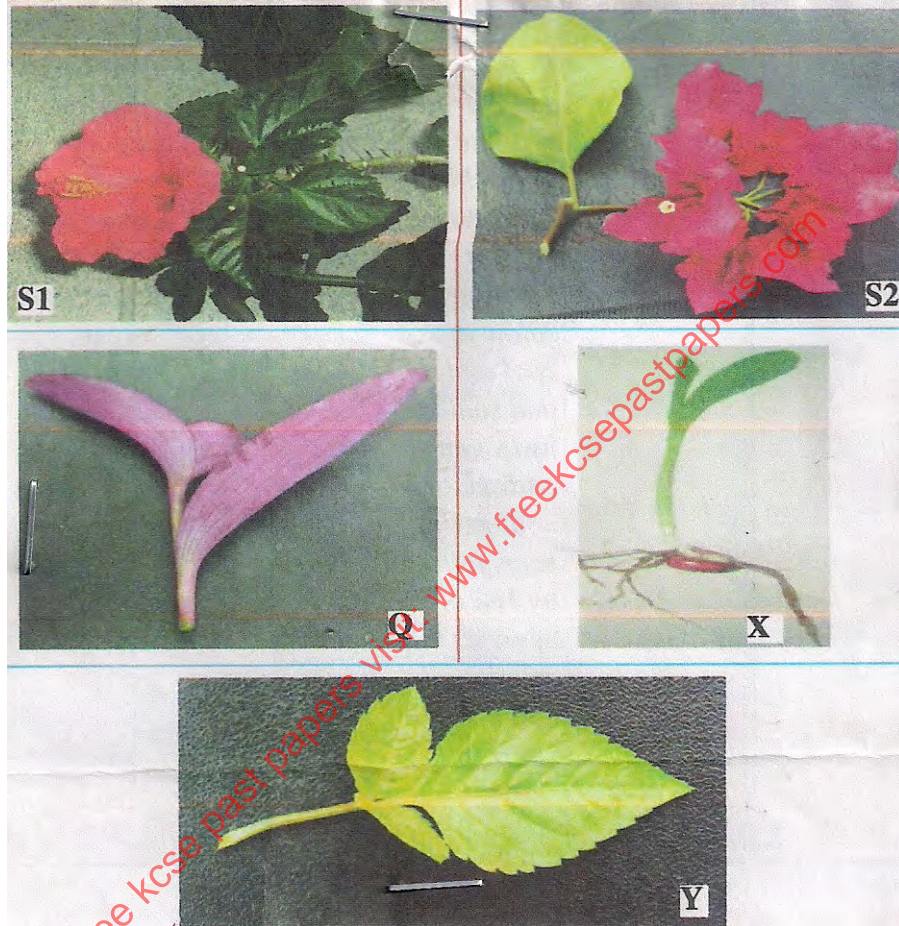
FOR EXAMINER'S USE ONLY

QUESTION	MAX. SCORE	CANDIDATE SCORE
1	16	
2	12	
3	12	
TOTAL	40	

SECTION A (40 MARKS)

Answer all questions in this section in the spaces provided.

1. You are provided with photographs of specimens labeled S1, S2, Q, X and Y. Examine them carefully and answer the questions that follow.



- (a) Using observable features in the photographs, complete the dichotomous key given below. (3mks)

1. (a) Leaves parallel veined go to 2
- (b) Leaves net veined..... go to 3
2. (a) Leaves green..... Graminae
- (b) Leaves purpleCommelinaceae
3. (a) Leaves simple go to 4
- (b) _____..... go to 5
4. (a) Leaves margin smoothNyctaginaceae
- (b) _____.....Malvaceae

5. (a) Trifoliolate leafAsteraceae
 (b)Cassia

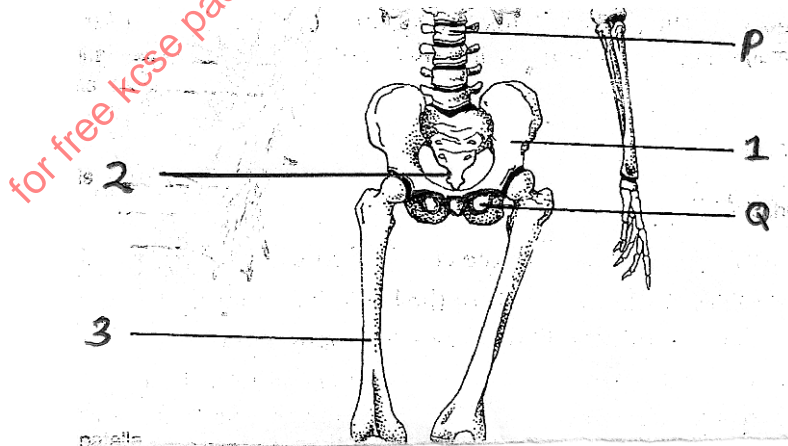
(b) Use the completed dichotomous key to identify the family to which each specimen belongs. (10mks)

SPECIMEN	STEPS FOLLOWED	IDENTITY
S1
S2
Q
X
Y

(c) State how specimen S2 is adapted to its mode of pollination. (3mks)

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2. Below is a photograph obtained from the pelvic region of a human being and showing some bones of the vertebral column. Examine it carefully and answer the questions that follow.



(a) Identify the bones labeled 1, 2 and 3. (3mks)

1:.....
 2:.....
 3:.....

(b) (i) Name the type of joint formed at the proximal end of bone 3 as it articulates with the adjacent bone. (1mk)

.....

(ii) Give an observable feature on bone 3 for your answer in (b) (i) above. (1mk)

.....

(c) (i) Identify the part labeled P. (1mk)

.....

(ii) Give **two** functions of the part identified in (c) (i) above. (2mks)

.....

.....

(d) Using observable features only, state how bone 1 is adapted to its functions. (2mks)

.....

.....

(e) (i) Identify the part labeled Q. (1mk)

.....

(ii) Give the function of the part labeled Q. (1mk)

.....

3. You are provided with a sample of food labeled X in solution form, solution Y (Benedict's Solution), solution J (DCPIP), Solution K (Sodium hydrogen carbonate), Solution L (1% copper sulphate), solution M (Dilute hydrochloric acid) solution N (sodium hydroxide) and filter paper. Carry out tests on the food sample to identify the type of food substance present. (12mks)

Food being tested for	Procedure	Observation	Conclusion

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