

Name INDEX. No

Candidate's signature.....Date.....CLASS.....

FORM 4 MID-YEAR EVALUATION EXAMINATION 2018

Kenya Certificate of Secondary Education

231/3

BIOLOGY

Paper 3

(Practical)

July/August 2018

1 $\frac{3}{4}$ Hours

Instructions to candidates

- a) Write your name, Index Number, class in the spaces provided above.
- b) Sign and write the date of examination in the space provided above.
- c) Answer **ALL** the questions in the spaces provided.
- d) 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.
- e) Additional pages must not be inserted.
- f) **This paper consists of 6 printed pages.**
- g) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- h) **The candidate should answer all the questions in English.**

For examiner's use only

Question	Maximum score	Candidate's score
1	12	
2	15	
3	13	
Total score	40	

1. a) You are provided with specimen labelled Q. Remove the endosperm and crush using a motor and pestle. Add distilled water and obtain a solution. Decant the mixture to obtain solution Q1. Using the reagents provided, test the food present in solution Q1. (8marks)

Food substance being tested for	Procedure	Observation	Conclusion

b) Account for your observation in (a) above (3marks)

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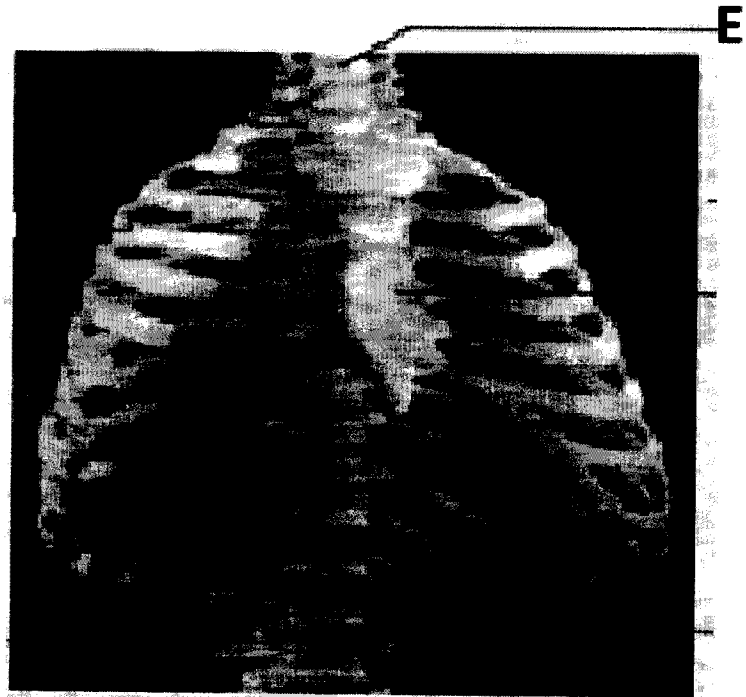
.....

.....

c) Name the type of germination represented in the specimen above (1 mark)

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2. a). You are provided with a photograph with part of human skeleton. Use it to answer questions that follow.



i) Name the first vertebra labelled **E** and state how it is adapted to its function. (4marks)

Name.....

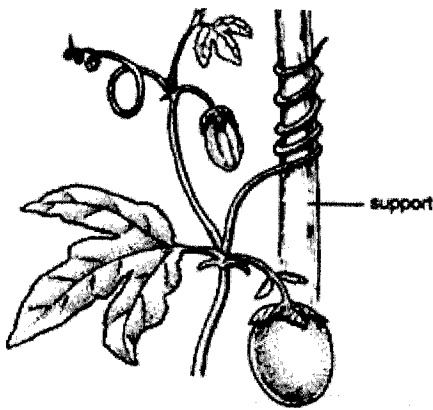
Adaptations

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.....
.....

ii) Name the structure in the skull that articulates with the vertebra **E**.(1mark)

.....

(iii) Below are two photographs of plants.



M



R

(a) Identify support structures used by the plants in photographs **M** and **R** shown above.

(2marks)

M.....

R.....

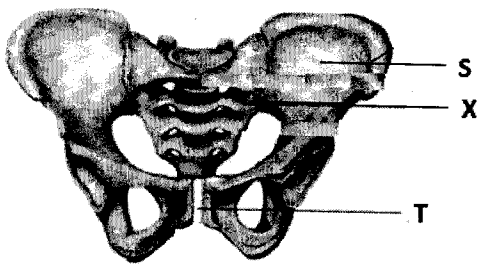
(b) Other than the structures illustrated above, name any one support structure in herbaceous plants.

(1 mark)

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b) The photographs below represent some skeletal materials obtained from a certain mammal.

Study them then answer the questions that follow.



A



B

i) Identify fused bone labeled **X**

(1mark)

.....

ii) Name parts **S** and **T** on photograph A and part **U** on photograph B (3marks)

S-

T-

U-

iii) Name the type of joint formed at the proximal and distal end of bone B (2marks)

Proximal end.....

Distal end.....

iv) Name the type of joint found in structure labelled X (1mark)

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3. a). You are provided with specimen labelled **P**. Using a sharp scalpel, cut the specimen longitudinally to obtain two halves. Draw a large well labelled diagram of one of the sections obtained. (5marks)

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b) i) Identify the agent of pollination of the above specimen (1mark)

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ii) Give three reasons for your answer above (3 marks)

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iii) Describe the floral parts of specimenP (4mark)

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