MOI HIGH SCHOOL
KABARAK

FORM 3 2026 END TERM 3 EXAMS

Paving Way For Kenya Certificate of Secondary Education Success

Name …….. Admission no…….

Candidate's Signature…… Date…….

FORM 3

BIOLOGY

PAPER 3

TIME: 2Hours

INSTRUCTIONS TO CANDIDATES:-

- Answer **all** the questions
- Write your **name, admission number** and **school** in the spaces provided above.
- **Sign** and **write** the **date** of examination in the spaces provided above.
- You are required to spend the first 15 minutes of 1 ¾ hours allowed for this paper reading the whole paper carefully before commencing your work.

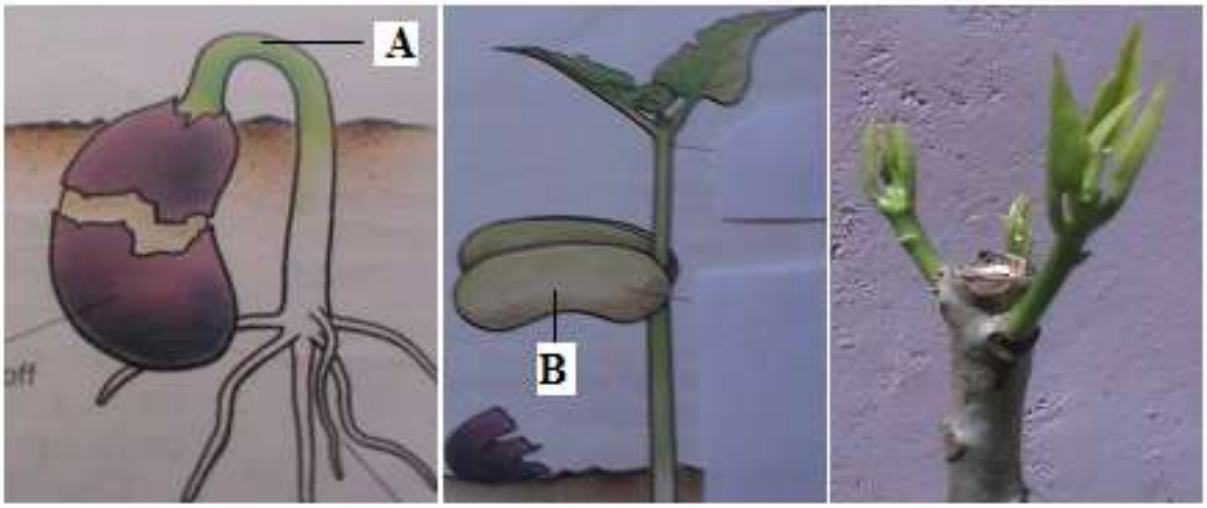
FOR EXAMINER'S USE ONLY:

Question	Maximum score	Candidate's score
1	13	
2	8	
3	19	
TOTAL	40	

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1 Study the photographs below and answer the questions that follow:

PHOTOGRAPH J **PHOTOGRAPH K**



a)**Photograph K** illustrates the observations made two weeks after the plant was trimmed.

(i)Name the phenomenon that was experienced by the plant before it was trimmed **(1mk)**

(ii) Account for the observation made in the shoot after the practice **(2mks)**

(iii) Give one application of the practice in agriculture **(1mk)**

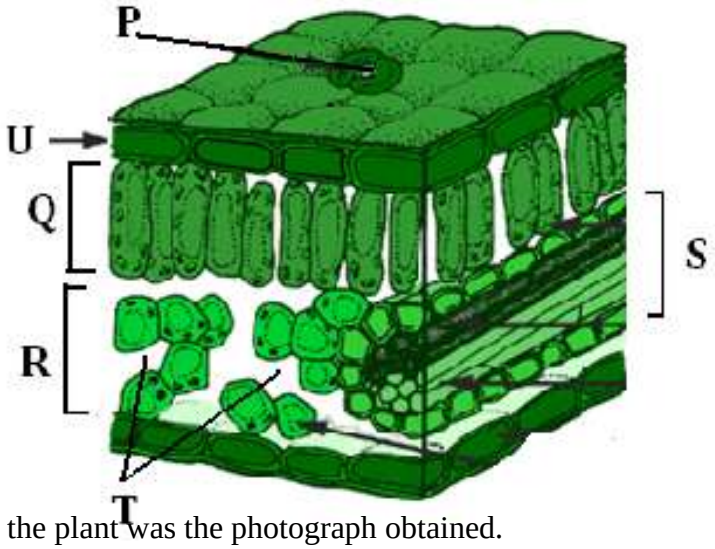
b) **In photograph J**

(i) Name the part labeled **A** **(1mk)**

(ii) State one functions of part **B** **(1mk)**

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c) The photograph below shows the arrangements of different type of cells and tissues in a certain living organism. Study it and answer the questions that follow.



i) From what part of the plant was the photograph obtained. **(1mk)**

ii) Name the parts Labeled. R **(1mk)**

d) i) State the function of the part labeled Q. **(1mk)**

ii) State one adaptation of structure Q to its function. **(1mk)**

e) State one environmental factor which regulate the function of the part labeled P. **(1mk)**

f) Measure the length of one cell of region labeled Q on the photomicrograph whose magnification is X5000.What is the actual length of the cell in micrometer? Show your working. **(2marks)**

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2. Study the kidney diagrams below

FIGURE I

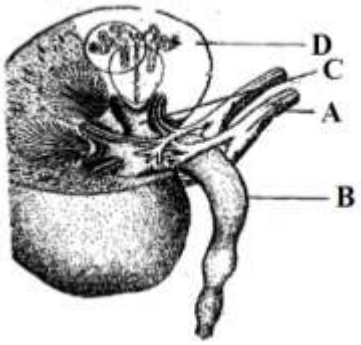
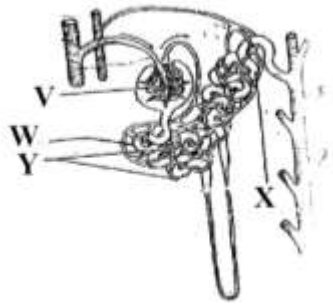


FIGURE II



a)i) Name the parts labeled A in figure 1 **(1mk)**

A ……

ii) Name the processes that take place in the parts labeled (1mk)

V ……

b) State two adaptations of the part labeled **W** **(2mks)**

c) On the diagram name the part where counter current flow occurs **(1mk)**

d) State one homeostatic function of the organ in the diagram above **(1mk)**

e) Explain what will happen to the process of urine formation in absence of vasopressin (A.D.H) hormone. **(2mks)**

3. You are provided with specimen Y, 0.01% DCPIP and 0.1% Ascorbic Acid.
Examine specimen Y.

a).i) What part of plant is specimen Y? **(1mk)**

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ii) Give a reason for your answer for (a) (i) above. **(1mk)**

b) Cut a transverse section through specimen Y **(3mks)**
Draw and label one of the cut surface

c) i)To $1cm^3$ of DCPIP in a test-tube add 0.1% solution of ascorbic acid drop wise until the colour of DCPIP disappears. Shake the test tube after addition of each drop. Record the number of drops used **(1mk)**

……

Squeeze the juice from one half of specimen Y in a l00mI beaker. Add l0mI of distilled water. Filter it in 50ml measuring cylinder provided.

ii. To another $1cm^3$ of DCPIP in a test tube, add the juice from specimen Y drop by drop. Shake the test tube after the addition of each drop until the colour of DCPIP disappears. Record the number of drops used **(1mk)**

……

iii) From the results obtained in (c)(i) and (ii) above, calculate the % ascorbic acid in the juice obtained from specimen Y. show your working. **(2mks)**

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d. Below are photographs labelled B and C of organs obtained from different animals . The organs perform similar functions. Examine them and answer the questions that follow.

B **C**



(i) Name the organ C **(1mk)**

(ii) Give one adaptation of the part marked B1 **(1mk)**

(b) State one common function performed by the organ stated in a (i) above. **(1mk)**

(c) Name the parts labelled B1and B2 in photographs B **(2mks)**

B1…….
B2……

(d) (i)Identify the part labelled K2 in photograph C **(1mk)**

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(ii) Using observable features, state how the parts labelled K1 and K3 are adapted to their functions. **(4mks)**

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