Candidates' Name: ……..…….....……..……..

Signature: ……..….....……

Random No.					Personal No.		

(Do not write your school / Center name or Number anywhere on this booklet)

527/2

PRINCIPLE AND

PRACTICES OF

AGRICULTURE

July/Aug, 2023.

(PRACTICAL)

PAPER 2

2 hours

KAMTEC EXAMINATIONS BOARD

Uganda Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

(PRACTICAL)

Paper 2

2 hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of **five** questions.*

*Answer **all** questions.*

*The answers are to be written in **ink** in the spaces provided.*

For Examiners' Use Only		
Question	**Marks**	**Examiner's signature & No.**
1		
2		
3		
4		
5		
Total		

 TURN OVER

1. You are provided with specimen X and Y which are soil samples. Carry out tests on the specimens following the procedure provided.
Label two measuring cylinders as X and Y.
Put specimen X in the measuring cylinder labeled X while tapping the bottom of the cylinder gently to compact the soil being added until it reaches a volume of **$20cm^3$.**
Repeat the procedure as you put specimen Y into the measuring cylinder labelled Y.
Now add **$50cm^3$** of water into each measuring cylinder; stir each thoroughly using a glass rod and leave to stand for 15 minutes.

(a) After 15 minutes; record the volume of the contents in each measuring cylinder.

(i) Volume in measuring cylinder. (01mark)

X

.....

……..

Y

.....

……

(ii) From the results in (a) (i) calculate the percentage of air in each specimen. (02 marks)

X.....

.....

.....

Y.....

.....

.....

(b) State the differences observed in the layers of the contents in the two cylinders. (02marks)

.....

.....

.....

(c) Using the results from your tests in (a) and (b); state the type of soil each specimen is; giving reasons. (03 marks)

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(d) (i) Which of the above specimens is not suitable for crop growth? ($1/2$ marks)

.....

(ii) Suggest **three** ways of improving the specimens in d (i) ($1\,1/2$ marks)

.....

.....

.....

2. You are provided with the following specimens which are used in the tractor engine.

a) Give **one** function of each specimen. ($1\,1/2$ marks)

A.....

……..

B.....

……

C.....

……..

b) Observe the above specimen and give the features which enables them to perform the above function. (03marks)

A

.....

.....

B

.....

.....

C

.....

……..

c) Make a well labelled drawing of specimen A. ($2\,1/2$ marks)

d) How can a farmer maintain specimen **B** in a good working condition?
(03marks)

.....

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.....

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3. (a) You are provided with the following specimens which are animal products, observe them and state their condition.
(02marks)

D

.....

E.....

F.....

.....

G.....

.....

(b) Comment on the suitability of the above specimens. (02marks).

D.....

E.....

F.....

G.....

(c) What should have caused the conditions of the specimens in (2) (a) above? ($1^1/_2$ marks)

D.....

E.....

F.....

.....

G.....

(d) (i) Dip the blue and red litmus paper in specimen E and State your observation. ($1\frac{1}{2}$ marks)

.....

.....

(ii) What might have caused the above observation in specimen E? ($\frac{1}{2}$ marks)

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.....

.....

(e) How can the farmer produce high quality of the specimen? ($2\frac{1}{2}$ marks)

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4. You are provided with specimens **P** and Q.

(a) State the type of mouth parts that each specimen has. (01mark)

P

.....

Q

.....

(b) Give **two** possible effects caused by specimens P and Q on crop produce. (02marks)

P

.....

.....

Q

.....

.....

(c) Describe how specimen **P** is adapted to its life as a pest. (03marks)

…….
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…….

……

…….

(e) Suggest t**wo** measures how each of the specimens P and Q can be controlled on the farm. (04marks)

P

.....

.....

Q

.....

.....

5. Specimens L_1, L_2 and L_3 are tools used in the farm.

(a) Basing on observable feature, state the function of specimen L_2. ($^1/_2$ marks)

.....

(b) Identify the features on each specimen that aids its proper functioning. ($1^1/_2$ marks)

L_1

.....

L_2

.....

L_3

.....

(c) Explain how the features identified in (a) aid each specimen to function. (06marks)

L_1

.....

.....

L_2

.....

.....

L_3

.....

.....

(d) Describe the procedure of using specimen $\mathbf{L_I}$ to perform its function. (02marks)

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.....

END.