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**PRINCIPLES AND**

**PRACTICES OF AGRICULTURE**

**PAPER 2**

**PRACTICAL PAPER**

**2023**

**2 HOURS**



## **BUSIIKA MUSLIM SECONDARY SCHOOL**

### **Uganda Lower Secondary Curriculum END OF YEAR EXAMS 2023 PRINCIPLES AND PRACTICES OF AGRICULTURE (PRACTICAL)**

Paper 2

S.3

**2 hours**

#### **INSTRUCTIONS;**

*Answer all questions in this paper*

*All answers must be written in spaces provided*

For Examiner's Use only		
Question	Marks	Examiner's Signature and Number
<b>Total</b>		



**INSPIRE TO EXCEL**

1.(a). You are provided with specimen **A** and **B** which are soil samples. Carryout tests on the specimen following the procedure provided.

Label two measuring cylinders as **A** and **B**.

Put specimen **A** in the measuring cylinder labeled A, while tapping the bottom of the cylinder gently to compact the soil being added until it reaches a volume of  $20\text{cm}^3$ .

Repeat the procedure as you put specimen '**B**' into the measuring cylinder, now add  $50\text{cm}^3$  of water into each measuring cylinder stir each thoroughly using a glass rod and leave it to stand for 15 minutes.'

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

(i) . Volume in measuring cylinder; (1 mark)

**A**.....

**B**.....

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

**A** .....

**B**:.....

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

<b>A</b>	<b>B</b>



(c).Using the results from your tests in (a) and observations in (b); State the type of the soil each specimen is ;giving a reason for your answer. (03 marks)

A.....  
 .....  
 .....  
 .....

B.....  
 .....  
 .....

(d). (i) Which of the above specimen is NOT suitable for crop growth?(  $\frac{1}{2}$ mark)

.....

(ii). Suggest three ways of improving the specimen you have given in

(d)(i)(1  $\frac{1}{2}$ mark)

.....  
 .....  
 .....

2.You are provided with specimens **P**, **Q**, **R**, and **S** which are workshop tools.

(a) (i) Observe them critically and identify the specimens. (02mark)

P.....

Q.....

R.....

S.....



(b) In table below, state the function of each specimen in the construction of a feed trough. (04marks)

Specimen	Description of function of the specimen
<b>P</b>	..... .....
<b>Q</b>	..... .....
<b>R</b>	..... .....
<b>S</b>	..... .....

(c). State the measures that should be taken to keep each of the specimens **P** and **Q** in good working conditions.

**P**

(02 marks)

.....  
.....  
.....

**Q**

(02 marks)

.....  
.....  
.....



3. Specimen **C, D, E F** and **G** are part of digestive system of ruminant animal.

(a) Observe and arrange the specimens in order the food passes through them during digestion.

.....  
 .....  
 .....  
 .....(02 $\frac{1}{2}$ marks)

b) Describe the structural appearance of each specimen

**C**.....  
 .....  
 .....

**D**.....  
 .....  
 .....

**E**.....  
 .....  
 .....

**F**.....  
 .....  
 .....

**G**.....  
 .....  
 .....

.....(02 $\frac{1}{2}$ marks)



(c).State the function of each specimen.

**C**.....

.....

**D**.....

.....

.....

**E**.....

.....

.....

**F**.....

.....

.....(05 marks)

4. Specimens **I**, **J** and **K** are used in soil amendments. Examine them carefully and use them to answer the questions that follow.

a) Describe the characteristics of each specimen. ( 03 marks)

**I**.....

.....

**J**.....

.....

**K**.....

.....

b) Basing on your observations of **I** and **J** suggest four advantages of using specimen **J** over **K**. (02 marks)

.....

.....

.....

.....



(c). Measure 2 spatulafuls of specimen **I** and pour it in a boiling tube/ test tube. Add 5cm<sup>3</sup> of water and shake it vigorously for 1 minute and record your observations in the table below. Repeat the procedure with **J** and record your observations in the table provided. (02 marks)

Specimen	Observation.	Conclusion
I		
J		

(d). Basing on your results in (c) above, suggest the best method of applying the specimens above in a crop field. Give a reason for your answer. (03 marks)

**I**

Method of application.

.....

Reason.

.....

.....

**J**

Method of application.

.....

Reason.

.....

.....



5.Specimen **Z** is a crop plant. Use it to answer the questions that follow.

(a) (i) State the family to which the specimen belongs. (01 mark)

.....

.....

(ii).Observe the root system of the specimen and record your observation. (04 marks)

.....

.....

.....

.....

.....

.....

(b).Basing on the observation in (a) (ii) above, suggest the functions of the features to the specimen. (04 marks)

.....

.....

.....

.....

.....

(d). Observe the leaf structure of the specimen and give reasons why it should be included in the cropping programme. (01 marks)

.....

.....

.....

**\*\*END\*\***







**CONFIDENTIAL**

Pounded dry clay soil    A

Pounded dry loam soil    B

Reticulum                      C

Omasum                         D

Rumen                          E

Illeum (small intestine)    F

Abomasum                      G

Single super phosphate (SSP)    I

Well decomposed farm yard manure with enough moisture.    **J**

Urea/CAN/ sulphate of ammonia fertilizer.    **K**

Jack plane                      P

Cross cut saw                 Q

Claw hammer                 R

Mallet                          S

A whole maize plant, bean /soya bean plant with pods.    **Z**

