

# UNEB U.C.E AGRICULTURE PRACTICAL PAPER 2 2004

## PRACTICAL

1. You are provided with soil samples **E** and **F**. label the two measuring cylinders provided. **E** and **F**. place a small piece of cotton wool at the bottom of each of the funnels provided and place the funnels onto the labeled measuring cylinders. Measure 40 cm<sup>3</sup> of soil sample **E** and pour it into the funnel placed on measuring cylinder **E**. repeat the procedure with soil sample **F**. add 100 cm<sup>3</sup> of water, poured at once to each soil sample in the funnels.

a) Record the volume of water that goes through each soil sample after 5 minutes, in the table below. Complete the table by calculating the volume of water retained by each soil sample.

Soil sample	Volume of water added (cm <sup>3</sup> )	Volume of water that goes through the soil (cm <sup>3</sup> )	Volume of water retained by the soil (cm <sup>3</sup> )
<b>E</b>	100		
<b>F</b>	100		

b) State the soil property being investigated in the experiment.

c) From the results of your experiment state with reasons, which of the two soil samples is more suitable for crop production.

(i) Soil sample

(ii) Reasons

d) How would you improve on the soil you consider less suitable for crop growth?

2. Specimen **G<sub>1</sub>**, **G<sub>2</sub>**, **G<sub>3</sub>**, **G<sub>4</sub>** and **G<sub>5</sub>** are materials from a sugar cane crop.

a) Giving a reason in each case, comment on the suitability of each specimen for planting.

**G<sub>1</sub>**

**G<sub>2</sub>**

**G<sub>3</sub>**

**G<sub>4</sub>**

**G<sub>5</sub>**

b) Identify one of the specimens that could be improved for planting and suggest how it could be improved.

(i) Specimen

(ii) Improvement

c) Describe how you would plant the specimen in (b), after improvement.

3. You are provided with specimen **J<sub>1</sub>**, **J<sub>2</sub>**, **J<sub>3</sub>**, **J<sub>4</sub>**, **J<sub>5</sub>** and **J<sub>6</sub>** which are parts of a tractor.

a) Identify the specimens and give one function of each in the table provided.

Specimen	Identity	Function

<b>J<sub>1</sub></b>		
<b>J<sub>2</sub></b>		
<b>J<sub>3</sub></b>		
<b>J<sub>4</sub></b>		
<b>J<sub>5</sub></b>		
<b>J<sub>6</sub></b>		

b) Give one condition that would require the use of a fresh supply of specimen J<sub>3</sub>

- c) (i) In which type of engine does specimen J<sub>6</sub> belong?  
(ii) How would you maintain specimen J<sub>6</sub> in good working condition?

4. You are provided with specimen **K**, **L** and **M**.

a) Identify specimen **K** and state its use.

- i) Identity  
ii) Use

b) (i) Place specimen **L** into the hole on specimen **K** and switch on the light. Look through **L** and record your observation.

Observation.....

(ii) Repeat the procedure in (b) (i) with specimen **M**.

Observation.....

c) Basing on your observation in (b) (i) and (b) (ii), what conclusion can you draw about the suitability of specimens **L** and **M** for hatching?

(i) Conclusion on **L**.

.....

Reason

.....

(ii) Conclusion on **M**

.....

Reason

.....

d) State five considerations you would make when selecting the specimen for hatching.

5. Specimen **Q<sub>1</sub>**, **Q<sub>2</sub>**, **Q<sub>3</sub>**, **Q<sub>5</sub>** and **Q<sub>6</sub>** are used in the milking process.

a) Identity each specimen.

Q1

Q2

Q3

Q4

Q4

b) Describe how each specimen is used in milking.

Q1

Q2

Q3

Q4

Q5

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