

UGANDA CERTIFICATE OF EDUCATION

AGRIC P527/2

TIME: 2HOURS

INSTRUCTIONS

- Answer all questions
- Do not interchange the specimens
- Write in the spaces provided

1. (a) You are provided with soil samples A, B and C, measure 50cm³ of samples A₁ pour it in the funnel line with filter paper, place the funnel onto a measuring cylinder, measure 40cm³ of water and pour it in A₁. Record the volume of water that collects in the measuring cylinder after 2 minutes, 3 minutes, 4 minutes, 5 minutes and 6minutes in the table below. Repeat the same procedure using samples B and C.

Table of Results

Sample	Volume of water after different minutes (cm ³)		
	1min	2min	3min
A			
B			
C			

(3mks)

(b) Mention the observation(s) which can be made on all the samples on the volume of water collected after 6 minutes. (2mks)

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(c) Give two reasons for the volume of water collected in sample C after 3 minutes. (2mks)

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(d) Calculate the percentage of water retained in sample C after 3 minutes. (2mks)

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(e)What soil properties have been investigated in the tests in (a) above. (1mk)

2. Specimen O, P and Q are used in tractor engines.

(a) Identify each specimen

O.....

P.....

Q.....

(b) Mention one property of each specimen O and P which make them suitable for use in the engines. (2mks)

O.....

.....

P.....

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(c) (i) Mention one major function of specimen Q. (½ mk)

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(ii)Name the tractor system where the specimens are used. (1mk)

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(d) (i)Mention any four parts of the engine where specimen P can be applied. (2mks)

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(ii)Mention any three uses of specimen O and P in the engine. (3mks)

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3. Specimen L, M and N are animal parasites.

(a) (i) What major type of parasite is each specimen (1 ½ mks)

L.....

M.....

N.....

(ii)Mention the part of the farm animal where each specimen lives

L.....

M.....

N.....

(b) How is each specimen adapted to live in the parts mention in (a) (ii) above?

L.....

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M.....

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N.....

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(c) (i)Mention one form of damage each specimen causes on the animal of attacks.

L.....

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M.....

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N.....

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(ii)Mention one suitable control measure for each specimen.

L.....

M.....

N.....

4. You are provided with specimen Z_1 which is a crop pest and Z_2 which is a crop seed damaged by pest

(a) (i)What type of pest is specimen Z_1 (1mk)

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(ii)Observe the mouth parts of specimen Z_1 and describe how they are adapted to destroy crops. (2mks)

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(b) (i)Describe the form of damage on specimen Z_2 (1mk)

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(ii) Which pest could be responsible for the damage observed in (b) (i) above. (1mk)

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(c) (i) Mention any two suitable ways of controlling specimen Z₁ (2mks)

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(ii) What are the ways of controlling and preventing the condition in Z₁ caused by the pest? (3mks)

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5. Specimen D₁, D₂ and D₃ are used in construction of farm structures. (5mks)

(a) (i) Identify each specimen

D₁.....

D₂.....

D₃.....

(ii) Mention one major function of each specimen during construction.

D₁.....

D₂.....

D₃.....

(b) How is specimen D₂ and D₃ suited to perform their functions? (2mks)

D₂.....

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D₃.....

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(c) Mention any two ways of maintaining specimen D₂ and D₃ in good working condition. (2mks)

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END