

Names:.....**Index:**.....

School Exam Number:**Signature:**.....

P515/2
AGRICULTURE
PRINCIPLES AND
PRACTICES
Paper 2
6 August 2018
3 hours

*Candidates should **NOT** write their Centre Name
or Centre Number anywhere on this booklet*

ENTEBBE JOINT EXAMINATION BUREAU

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

Paper 2

THEORY

3 hours

INSTRUCTIONS TO CANDIDATES:

*This paper consists of Sections **A, B, C, D** and **E**.*

*Attempt Question **One** in Section **A** and **four** other questions, choosing one from each of the Sections **B, C, D** and **E**.*

*Any extra question(s) shall **not** be assessed.*

SECTION A (20 Marks)

COMPULSORY QUESTION

1. Table 1 shows the effect of feed amount on the butter fat content (BFC) of milk, milk yield per week and nutrient uptake for three breeds of dairy cows.

Feed amount (Kg)	Butter fat content (%)	Total milk yield (lts/week)	Nutrient uptake		
			A	B	C
30	1.6	57	724	85	109
60	8.3	108	749	120	132
90	13.2	157	777	350	168

- (a) From the table, explain the effect of feeding level on the
- (i) Butter Fat Content
 - (ii) Nutrient uptake
 - (iii) Milk yield
- (b) From the table, suggest the effect of low feed intake on the appearance of dairy cows. Explain your answer.
- (c) Basing on nutrient uptake, identify the breed likely to have the highest weight gain.

SECTION B: (20 marks)

CROP PRODUCTION

2. (a) Explain why field pests like the *fall army worm* are difficult to eradicate from crop fields. (08 marks)
- (b) Discuss the cultural practices farmers can adopt to minimise pest insurgence in the field. (12 marks)
3. (a) Discuss the influence of the following soil properties to crop production.
- (i) Soil structure (05 marks)
 - (ii) pH (05marks)
- (b) What measures can farmers take to ensure sustainable use of the soil in crop production? (10 marks)

SECTION C: (20 marks)

ANIMAL PRODUCTION

12. (a) Describe the conditions that exhibit ill health among livestock. (08 marks)
- (b) Explain the prophylactic practices that farmers can adopt for effective disease management on the farm. (12 marks)
13. (a) Describe the milk let down process. (06 marks)
- (b) Explain the rules for good quality milk production. (08 marks)
- (c) Outline the challenges of machine milking on a dairy farm. (06 marks)

SECTION D: (20 marks)

AGRICULTURAL ENGINEERING

14. (a) Explain why the level of droughts technology usage is still low among the Uganda farmers. (12 marks)
- (b) Suggest recommendations to improve the efficiency animal drawn equipment. (08 marks)
15. (a) Explain the precautions necessary for effective cattle dipping. (06 marks)
- (b) A school plans to construct a cattle dip on its farm. What advice would you give to the school on dip location? Give a reason in each case.
- (c) What are the advantages of using cattle dips for tick control compared to other methods.

SECTION E: (20 marks)

AGRICULTURAL ECONOMICS

- 16.** (a) What measures has the government taken to ensure agricultural modernization in Uganda. *(10 marks)*
- (b) Identify the constraints to dissemination and adoption of agricultural technologies among farmers in Uganda. *(10 marks)*
- 17.** (a) Explain the ways in which prices for agricultural produce are determined. *(12 marks)*
- (b) Give reasons why there is need for government's intervention in agricultural pricing. *(08 marks)*