

P515/2  
PRINCIPLES AND  
PRACTICES OF  
AGRICULTURE  
Paper 2  
3hours.

**Uganda Advanced Certificate of Education**  
**P515/2 (PRINCIPLES AND PRACTICES OF AGRICULTURE**  
**PAPER 2**  
**3hours**

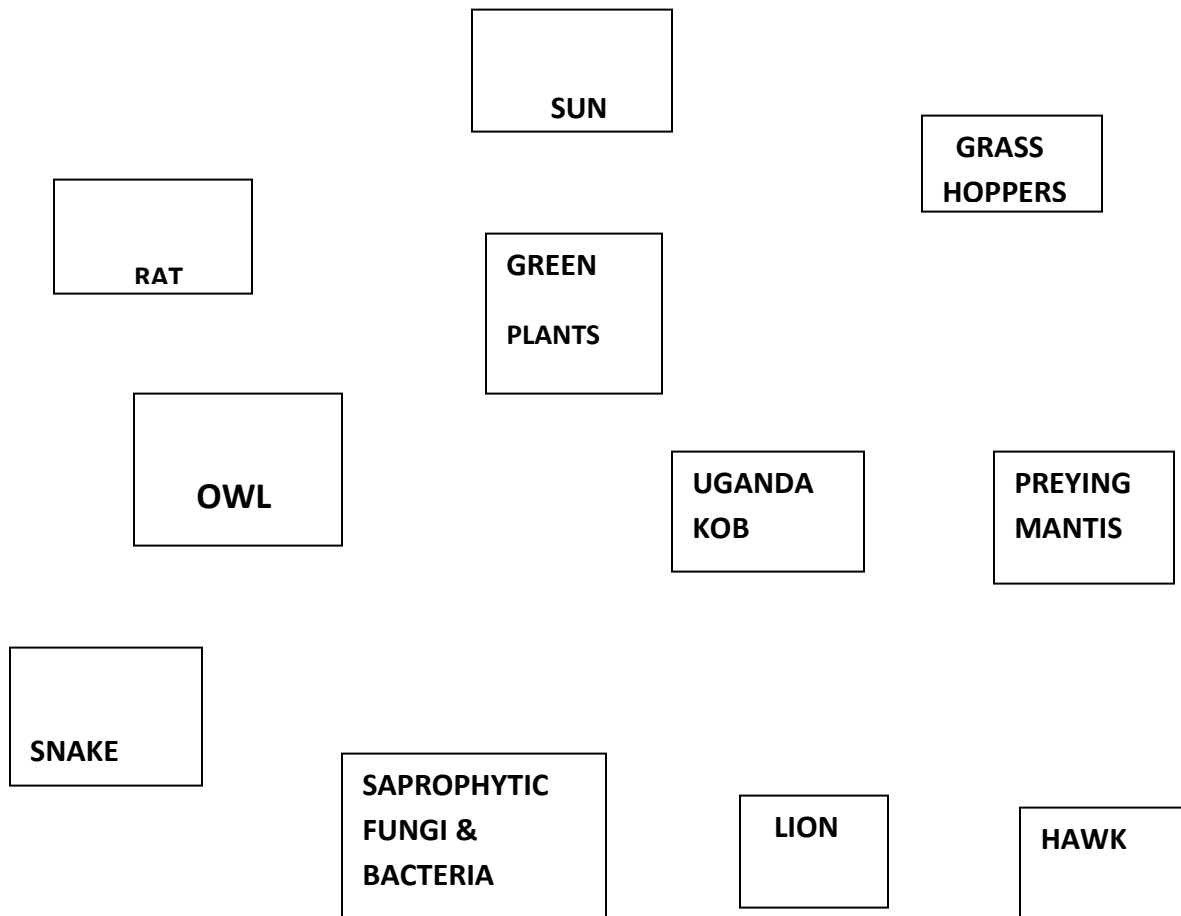
**INSTRUCTIONS TO CANDIDATES:**

- *This paper consists of section **A, B,C, D** and **E***
- *Answer question **1** in section **A** and **four** others questions selecting **one** from each of the sections **B, C, D, and E.***
- *Write answers to section **A** in the spaces provided.*
- *No additional question (s) attempted will not be marked.*

**TURN OVER**

**SECTION A: ( 20MKS)**  
**QUESTION ONE IS COMPULSORY.**

1. The figure below shows a food web in a terrestrial habitat.



- (a) Complete the food web by inserting the arrows linking the different organisms. (05mks)
- (b) State with reasons, which organisms in the food web would be most directly Affected if saprophytic fungi and bacteria were removed. (05mks)
- (c) Name and explain how modern agricultural practice affects the natural Ecosystem. (10mks)

**SECTION B (20MKS) CROP PRODUCTION**  
***(Answer one question from this section)***

2. (a) Explain the climatic and agronomic factors that affect crop growth and yield. (15mks)
- (b) Explain how farmers can manage late planted crops on the farm to obtain optimum yields. (05mks)
3. (a) Describe the event that take place in meiosis 1 during cell division. (04mks)
- (b) Outline the causes of variation in a population of organisms. (08mks)
- (c) Define an ecosystem and describe how agricultural affect the ecosystem. (08mks)

**SECTION C :( 20MKS) ANIMAL PRODUCTION**  
***(Answer one question from this section)***

4. (a) Define dystocia and give it's causes in farm animals. (06mks)
- (b) A cow in labour was observed with having difficulty in giving birth. Diagnosis of the problems revealed a calf's presence in the birth canal with front feet first and the head bending downwards between the front feet. Describe how you can help the cow to safely give birth. Use of caesarean section not allowed. (07mks)
- (c) Describe the care that a farmer should give to pregnant animals on the farm. (07mks)
5. (a) Describe the ideal site that the farmer would consider when establishing an apiary. (06mks)
- (b) Give the advantages of using a queen excluder in a top bar bee hive. (05mks)
- (c) Outline the management practices that increases honey production. (09mks)

**SECTION D: (20MKS) AGRICULTURAL ENGINEERING**  
***(Answer one question from this section)***

- 6.a) Explain the factors to consider when selecting wood for construction work on the farm. (08mks)
- b) Outline the procedure of air seasoning timber. (07ms)
- c) Describe hot and cold treatment of wood with preservatives. (5mks)
- 7.a) State the desirable qualities of a draft animal. (5mks)
- b) Explain the factors that affect power output from draft animals. (9mks)
- c) An apple crate of mass 40kg is pushed with a force of 140N up an inclined track of length 10m on to a lorry floor at a height of 2m from the ground.  
(Take  $g = 10\text{N/kg}$ . Calculate;
- (i) Work done by the force of 140N. (02mks)
- (ii) Work done if the box was lifted vertically upwards. (03mks)

**SECTION E: (20MRKS) AGRICULTURE ECONOMICS**  
***Answer one questions from this section.***

8. a) Mention and explain the factors an agriculture investor should consider when Choosing the location for his agricultural business. (10mks)
- b) Outline the problems faced b marketing organizations I marketing agricultural Produce. (10mks)
- 9.a) State the reasons for the government effort to undertake land reforms in Uganda. (06mks)
- b) Outline the land reform policies in Uganda necessary for increasing agricultural Production. (07mks)
- c) Describe how the current land tenure systems in Uganda affects agricultural Production (07mks)

**END**