

UGANDA MARTYRS



UNIVERSITY

**FACULTY OF AGRICULTURE
NGETTA CAMPUS
DIPLOMA IN CROP PRODUCTION MANAGEMENT
COURSE CODE; DCPM 1106 COMMERCIAL ANNUAL CROP PRODUCTION
FINAL ASSESSMENT
ACADEMIC YEAR 2023/2024 SEMESTER ONE
DCPM I
DATE: 14th/DEC/2023**

TIME ALLOWED:3 HOURS (2:00pm-5:00pm)

INSTRUCTIONS:

- *Attempt any four questions of choice*
 - *All questions carry equal marks*
 - *Start every question on a new page*
 - *Do not write anything on the question paper*
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1a. Mr. Opiyo have been in farming for over 5years in perennial crops, this time round he wishes to divert to the commercialization of annual crop which is beans. Kindly help discuss for him the ecological requirement and necessary agronomy for the production of beans as one way that would help him succeed. **(20marks)**

b. What are the attributes in beans that inspired Mr. Opiyo to grow beans (5marks)

2a. Explain how the following agronomic practices affects the growth and yields of crop in agricultural production **(10marks)**

- a) Seed selection (2marks)
- b) Planting (space, depth, density of seeds) (2marks)
- c) Weeding (2marks)
- d) Fertilizer application (2marks)
- e) Pest and disease control (2marks)

2b. Explain the effect various factors (environmental, biological and technological) on crop performance in your home area **(15marks)**

3a. Assume you are given experimental plot measuring 15m ×15m for the production of soybean with the spacing of 50cm ×30cm (3 seeds per hole). Calculate the plant population for the above plot and seed rate given **(7marks)**

b. Mr. Emma had 3hactare of land under maize production, he is to spray the field against pest and disease on instruction of 1000ml to 500L of water per acre.

i. How many mills (mls) of drug do he need to spray his 3 hectares of land **(6marks)**

ii. Calculate the quantity of water needed to spray his field **(6marks)**

iii. What could be the likely side effects of using chemicals? **(6marks)**

4. Discuss the various ways of controlling pest and diseases in crop production field under the following methods **(25marks)**

a) Physical method (5marks)

b) Cultural method (5marks)

c) Chemical method (5marks)

d) Mechanical method (5marks)

e) Biological method (5marks)

5a. Discuss the various economic importance of weeds to the growth and development of your country's economy **(15marks)**

b. According to you as a crop scientist, what makes weeds to survive to the next generation amidst the adverse environmental conditions **(10marks)**

6a. List the 17 essential mineral elements required for plant growth and development and their sources where plant uptake them **(17marks)**

b. State the various methods of fertilizer application giving example of fertilizer in each case used in agricultural production today. **(8marks)**

7a. Explain the safety precaution followed during handling of chemical for spraying in the field **(10marks)**

b. List and explain the five (5) crop pests commonly resulting to economic loss, damage, and injury to plants each indicating the nature of damage to the plants or crops **(15marks)**

8. Discuss the various weed control measures used in the agricultural production in Uganda today. **(25marks)**

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GOOD LUCK & MERRY X-MASS