

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE
IN AGRONOMY**

AGRI 860: SEED SCIENCE AND TECHNOLOGY

STREAMS: MSc. AGRONOMY (P/T)

TIME: 3 HOURS

DAY/DATE: WEDNESDAY 07/08/2024

2.30 P.M. – 5.30 P.M.

INSTRUCTIONS

- **Answer question one and any other two questions in the answer booklet provided.**

Section A (20 MARKS)

1. Describe seed pelleting and why it is an important seed enhancement procedure. (4 marks)
2. Seed is the basic and most critical input for sustainable agriculture; justify this statement. (5 marks)
3. Describe enforced and induced types of seed dormancy. (5 marks)
4. Describe how fertilizers and irrigation methods may affect seed crop production and indicate possible solutions. (6 marks)

Section B (40 Marks)

5. a) Discuss field roguing procedure, how it should be carried out for proper maintenance of genetic purity and quality during seed production. (8 marks)
b) Explain the process of seed formation with emphasis on pollination to fertilization. (12 marks)
6. a) Explain any five agronomic practices that seed scientists can use to improve seed physiological quality. (5 marks)

- b) Discuss the informal seed sector and suggest how it can be improved in Kenya for increased productivity especially in self-pollinated crop species. (15 marks)

7. Using examples, discuss priming as a post-harvest seed enhancement method. (20 marks)

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