

NATIONAL UNIVERSITY OF LESOTHO
B.Sc. (AGRIC) CROP SCIENCE EXAMINATION
CPS 4507: SEED PRODUCTION

JUNE 2023

MARKS: 100

TIME: 3 HOURS

INSTRUCTIONS: ANSWER ALL FIVE QUESTIONS.

COMMENCE EACH ANSWER ON A NEW SHEET.

Question 1: Define the following terms: (20 marks)

1. Seed (2)
2. Grow out test (2)
3. Scarification (2)
4. Roguing (2)
5. Seed certification (2)
6. Seed vigour (2)
7. Crop variety deterioration (2)
8. Seed pelleting (2)
9. Seed processing (2)
10. Variety catalogue (2)

Question 2: Briefly discuss (15 marks)

- 2.1 Isolation in seed production (5 Marks)
- 2.2 Five factors affecting seed demand (10 Marks)

Question 3: Differentiate between the following (25)

- 3.1 DUS and VCU tests in seed production (10 Marks)
- 3.2 Formal and Informal seed systems (10 Marks)
- 3.3 Double fertilisation and Triple fusion (5 Marks)

Question 4 (20 Marks)

4.1 Describe various classes of seed **(10 Marks)**

4.2 What do you mean by deterioration of crop varieties? Explain the five factors that are responsible for losses of genetic purity during seed production **(10 Marks)**

Question 5 (20Marks)

5.1 A local farmer is producing informal seed but wants to improve his seed quality and get a recognised approval for marketing the seed to local farmers. Assume you are a Seed Authorisation Officer who is guiding the farmer.

Define Quality Declared Seed to a farmer. Who introduced it. Why it was introduced and why you believe it is appropriate for him. Discuss its principles and how it can help him improve his seed production **(10 marks)**

5.2 Assume You are a Seed Inspector allocated a seed production field for inspection in order to certify the seed lot after harvest. You are meeting with formal seed producers for plenary sessions.

Discuss the objective of field inspection, frequency of inspections during seed growth, the purpose and expectations for each inspection briefly **(10 Marks)**

Good Luck!