



“Investing in Africa’s future”

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

NACP 306: SEED SCIENCE AND TECHNOLOGY

END OF SECOND SEMESTER FINAL EXAMINATIONS

APRIL 2023

LECTURER: W. MANYANGARIRWA

DURATION: 3 HOURS

INSTRUCTIONS

1. Answer All Questions in Section A, and,
2. Choose and Answer Any TWO Questions from Section B.

SECTION A

ANSWER ALL QUESTIONS IN THIS SECTION

1. Name at least two mandate crops for each of the following International Agricultural Research Centres; (i) CIMMYT, (ii) CIAT, (iii) ICRISAT, (iv) CIP, (v) IITA. [10]
2. Give the legal definition of the following terms as they apply to Seed Science and Technology.
(i) Container, (ii) Homogeneous, (iii) Seed lot, (iv) Purity, (v) Germination. [10]
3. Give a brief outline of the steps followed by a seed company from the time the seed is in the field to the time the seed is ready for marketing. [10]
4. a) Describe the three main types of seed treatment, outlining their advantages and disadvantages for farmers. [10]
b) Outline the different types of instruments used in seed sampling, highlighting the various situations in which each instrument is used. [10]

SECTION B

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

5. With reference to a crop that you have studied in detail, outline the seed production standards focusing on land requirements, field standards and laboratory standards. [25]
6. With reference to Seed health testing, give a concise outline of any two methods used to test seeds for the presence of seed-borne fungi. [25]
7. In most parts of sub-Saharan Africa, subsistence farmers are still reliant on seed donations. Many organizations are now shifting from seed donations to **seed fairs**. Give a concise justification for this shift in policy. [25]
8. You have been hired as a consultant to develop the seed industry in Somalia. Give an outline of the steps that you would follow, borrowing lessons from the development of the seed industry in Zimbabwe. [25]

End of Examination Paper