



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: +254(0) 799 529 958, +254(0) 799 529 959, +254 (0)712 524 293

Website: www.must.ac.ke Email: info@mucst.ac.ke

UNIVERSITY EXAMINATIONS 2022/2023

FOURTH YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF
BACHELOR OF SCIENCE IN FOOD SCIENCE AND TECHNOLOGY

AFT 3452: POST-HARVEST TECHNOLOGY OF NON-PERISHABLES

DATE: APRIL 2023

TIME: 2 HOURS

INSTRUCTIONS: Answer Question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

- a) Explain different types of postharvest losses incurred (4marks)
- b) State five factors to consider while locating storage structure for cereals (5marks)
- c) Explain importance of seed dormancy (5marks)
- d) State major changes that occur in cereals and legumes during storage (3marks)
- e) Describe factors that affect keeping quality of cereals and legumes in silos (5marks)
- f) Highlight two advantages and two disadvantages of conditioning cereals (4marks)
- g) Elucidate the factors that affect the plant layout facility for handling non-perishable (4marks)

QUESTION TWO (20 MARKS)

- a) ‘Amount of cereals that leave the farm level is not equal to the amount that reaches the consumer.’ Justify this statement (10marks)
- b) Discuss different ways in which seed dormancy may be controlled (10marks)

QUESTION THREE (20 MARKS)

- a) With relevant examples, explain the importance of post-harvest technology in Kenya (10marks)
- b) Discuss the following factors that affect grains during storage:
 - i. Moisture content (5marks)
 - ii. Temperature (5marks)

QUESTION FOUR (20 MARKS)

- a) You are employed at the National Cereals and Produce Board (NCPB) as a quality controller, where you are tasked with maintaining the quality of received and stored cereal. Discuss the method you would routinely use to detect and determine fungal toxins in the grains. (10marks)
- b) Describe the steps involved in seed germination (10marks)