

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE (FOST)

FOST 341: CEREALS AND ROOT TECHNOLOGY

STREAMS: BSC (FOST)

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 06/12/2017

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND ANY OTHER
TWO IN SECTION B

SECTION A – COMPULSORY (30 MARKS)

1. Define the following terms: a) Cereals, Gelatinisation, Winnowing, Triticale, parboiling
2. Describe the biotic and non-biotic factors that affect efficient conservation and storage of maize.
3. Explain techniques of inhibition of aflatoxin contamination.
4. Describe the differences in dry and wet milling in maize processing.
5. What are the major objectives and advantages of parboiling in rice processing
6. What are the significant roles of roots and tubers in developing – countries food systems.

SECTION B – ANSWER ANY TWO QUESTIONS) 40 MARKS

7. Discuss with aid of a flow process diagram the rice processing technology. [20 marks]
8. According to WHO and many countries including USA, they stress the nutritional importance of grains as a foundation of a good diet. Discuss the statement from the culinary point of view and chemical properties of the grains. [20marks]
9. Describe the various technological products from the following cereal and root crop maize, rice, wheat, cassava and potatoes. [20 marks]
10. Describe and illustrate with cross sectional diagrams, the general characteristics differences of roots and tubers compared to cereals in terms of morphology, physical and biochemical composition properties. [20 marks]