



FACULTY	AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
SCHOOL	AGRICULTURE AND FISHERIES SCIENCES		
DEPARTMENT	FOOD SCIENCE AND SYSTEMS		
SUBJECT	CEREAL SCIENCE AND TECHNOLOGY		
SUBJECT CODE	AFST 3882		
DATE	NOVEMBER 2024		
DURATION	3 HOURS	MARKS	100

Second Opportunity Examination

Examiner: Dr. S.C. Barrion

Internal Moderator: Mr.S. Emvula

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This question paper consists of **two (2)** pages excluding this front page.

Instructions

- **Answer all five (5) questions**

QUESTION 1

- a) The German purity law “*Reinheitsgebot*” states malted barley be used in the brewing of beer. Describe this barley malting process. [10]
- b) In the production of ready-to-eat (RTE) breakfast cereals flaking, extrusion and micronisation technologies are applied to grain. Differentiate these technologies. [10]

QUESTION 2

- a) Farmers are paid according to the grain quality delivered to mills. Describe how this is implemented. [10]
- b) With the aid of a flow diagram differentiate between cookies and crackers. [10]

QUESTION 3

- a) Improper drying of cereals may result in significant grain losses. Discuss. [10]
- b) Describe a process used to produce Vital gluten. [10]

QUESTION 4

- a) Compare and contrast the processing of a maize based beverage *Oshitaka/Mageu* and sorghum brewing. [10]
- b) The flour quality affects baked goods. Discuss any five (5) methods used to assess the quality of wheat flour. [10]

QUESTION 5

- a) Describe any three (3) commercial bread baking processes. [10]
- b) At the Shadikongoro Green scheme farm maize and wheat were harvested. Recommend postharvest handling operations for the removal of impurities from the grain. [10]

END OF THE EXAMINATION