



UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER

PROGRAMME; BSc. AGRICULTURAL ECONOMICS & AGRIBUSINESS
MANAGEMENT YR 2

COURSE CODE: ABE 208

TITLE OF PAPER: POST-HARVEST TECHNOLOGY

TIME ALLOWED: TWO (2) HOURS

SPECIAL MATERIAL REQUIRED: NONE

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY TWO OTHER
QUESTIONS

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CHIEF INVIGILATOR

SECTION ONE: COMPULSORY

QUESTION ONE

- a). Draw seed structures of maize (*Zea mays*) and bean (*Phaseolus vulgaris*). **(12 marks)**
- b). With the aid of examples describe four maturity indices used to harvest crops. **(8 marks)**
- c). Describe the grain loss pipeline. **(10 marks)**
- d). Describe the life cycle and damage caused by the larger grain borer (LGB) (*Prostephanus truncatus*). **(10 marks)**

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SECTION II: ANSWER ANY TWO QUESTIONS

QUESTION TWO

- a) Discuss physical factors affecting deterioration of harvested grain. (10 marks)
- b) Discuss biological factors affecting deterioration of stored grain. (20 marks)

QUESTION THREE

- a) Describe the process involved in solar drying of maize grain using box type driers. (10 marks)
- b) Discuss precautions that farmers should take when selecting insecticides for use in controlling storage pests. (10 marks)
- c) Give a full description of how the weevil tablet works. (10 marks)

QUESTION FOUR

- a) Discuss the salt (NaCl) method of estimating grain moisture content. (10 marks).
- c) Discuss the importance of psychrometrics and stored agricultural commodities. (20 marks)