



UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: BSc. AGRICULTURAL ECONOMICS & AGBMGT YR2
BSc. AGRICULTURAL EDUCATION YR2
BSc. AGRONOMY YR2
BSc. ANIMAL SCIENCE YR2
BSc. FOOD SCIENCE, NUTRITION & TECHNOLOGY YR2
BSc. HOME ECONOMICS YR 2
BSc. HOME ECONOMICS EDUCATION YR2
BSc. HORTICULTURE YR2
BSc. LAND & WATER MANAGEMENT YR2
BSc. TEXTILE & APPAREL DESIGN & MNGMT YR2

COURSE CODE: AEM 205

TITLE OF PAPER: FARM MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ALL QUESTIONS

DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR.

QUESTION 1

Mr Siwela is a commercial baby vegetable farmer based in the Sidvokodvo valley. He plans to extend his business by acquiring an additional plot measuring 1.6 ha. The plot is valued at E65, 962.87. Mr Siwela has approached Swazi Bank and FINCORP for financial assistance and both institutions are willing to finance him. Swazi Bank is offering a loan of E65, 962.87 at an annual interest rate of 14.5%, payable in 10 years. The other condition is that the loan should be repaid with an equal principal payment. FINCORP, on the other hand, is offering the same loan amount, at the same interest rate, also payable in 10 years. The only difference is that FINCORP wants the loan to be repaid with an equal total payment.

- (a) Which financial institution would you advise Mr Siwela to enter into a loan agreement with? Justify your answer by showing all the evidence. **[20 marks]**
- (b) Discuss the difference between the cost that a farmer would incur when using owned capital and borrowed capital. **[5 Marks]**

QUESTION 2

- (a) Discuss the major classifications of farm management decisions. **[4 marks]**
- (b) With the aid of a diagram, describe the key management functions, giving a clear indication how these are interlinked. **[10 marks]**
- (c) Discuss the decision making process in farm management. **[11 marks]**

QUESTION 3

- (a) Mr A.S Zulu cultivates 600 ha of maize. He is not sure whether he should buy a trailed harvester or continue using a contractor to harvest his field at a cost of E40 per hectare. Regarding the trailed harvester, Mr Zulu has received the following information from a local dealer:

▪ Price of new harvester	=	E40, 000.00
▪ Interest costs	=	16% per annum
▪ Insurance	=	E380.00
▪ Repair costs	=	E10.00 per hectare
▪ Fuel and oil	=	E10.00 per hectare
▪ Other working costs	=	E5.00 per hectare
▪ Salvage value after 10 years	=	E4, 000.00

Should Mr Zulu buy and use the trailed harvester or not? Justify your answer.

[15 marks]

- (a) With the aid of diagrams, differentiate between complementary and supplementary products. **[5 marks]**
- (b) How does the manager decide on the profit-maximising output levels for complementary and supplementary products? **[5 marks]**

QUESTION 4

Farmer Mr Sigwele applies different levels of fertilizer to his maize field and achieves corresponding yields, as shown below. Assume a unit cost of fertilizer is E24 per kg and a unit price of maize is E4 per kg.

Fertilizer (kg):	0	1	2	3	4	5	6	7	8	9	10
Maize yield (kg):	0	24	60	88	108	124	136	144	148	144	136

- (a) How much of maize should Mr Sigwele produce in order to maximize his profit? **Hint:** Approach this problem from the marginal revenue and marginal cost concepts. **[15 Marks]**
- (b) Mr Sigwele insists to continue applying fertilizer till an output of 148 units of maize is achieved even though he is following the profit-maximising goal. From the point of view of “profit-maximizing input level”, would you encourage Mr Sigwele to stick to his decision? If not, why? Explain **[10 Marks]**