

SIR ARTHUR LEWIS COMMUNITY COLLEGE  
DIVISION OF AGRICULTURE

ASSOCIATE DEGREE IN GENERAL AGRICULTURE  
2017/2018 ACADEMIC YEAR  
END OF SEMESTER ONE EXAMINATIONS



COURSE: FARM MANAGEMENT (FRM111)

DATE: 12<sup>th</sup> December, 2017

DURATION: 2 HRS mins

TIME: 9:00 a.m.

INSTRUCTION: THIS EXAMINATION CONSISTS OF TWO SECTIONS-

SECTION A AND SECTION B. ANSWER ALL QUESTIONS.

SECTION ONE

INSTRUCTIONS: Determine which statements are TRUE and which statements are FALSE. Give a reason for your response. Every question is worth (2 marks)

1. Contract farming reduces production risks.
2. Identifying the strengths and weaknesses of the business is a tactical management activity.
3. The establishment of goals forms part of the implementation phase of management.
4. When marginal physical product is increasing, average physical product is also rising.
5. "To produce a large quantity of bananas" is a good example of a goal of a farm.
6. Gross margin calculation forms part of partial budgeting.
7. Farm business analysis deals with the hiring policies of the business.
8. Costs represent the dollar value of the output of a farm.
9. Diminishing marginal returns can only happen in the short run.
10. Marginal product is found by dividing total product by the units of input.
11. There are potentially many different enterprise budgets for a single enterprise.
12. Break-even price is equal to total cost divided by output price.
13. Enterprise budgets are economic budgets.
14. Average total cost does depend on output.
15. The physical environment does not impact agriculture.

TOTAL 30 MARKS

## SECTION TWO

1. Your father is the owner/manager of a large farm. The farm consists of two main enterprises-vegetable production and a piggery. He has promised to hand over the management of the farm to you upon your graduation from SALCC next year.

- (a) Define the term "*Management*." (1 mark)
- (b) Write two production goals for the farm. (2 marks)
- (c) State one strategic decision that you would take regarding the low productivity of the vegetable plot. (2 marks)
- (d) Explain how you would treat the following in preparing a budget for the vegetable enterprise.
  - (i) The greenhouse bought specifically for growing vegetables.
  - (ii) Fertilizer
  - (iii) The tractor used for ploughing. (6 marks)
- (e) Use a diagram to represent the total cost curves for the vegetable enterprise. (4 marks)
- (f) State two ways in which you will demonstrate social responsibility in the conduct of your business. (3 marks)
- (g) List two physical efficiency measures that you would use to assess the performance of the piggery. (2 marks)

2. Managerial decision-making is often guided by the "*marginal principle*."

- (a) Explain the term 'marginal principle.' (2 marks)
- (b) How does a farmer use this principle in deciding whether he hires additional labour. (2 marks)
- (c) Sketch a graph depicting the profit maximization behavior of a firm in a perfectly competitive market. (4 marks)
- (d) To what extent is partial budgeting related to marginal analysis? (2 marks)
- (e) Assume that Beta Farm has just purchased a new tiller for \$120,000. It is estimated that fixed cost would be \$30,000/year, and variable costs to be \$120.00/acre.
  - (i) What will be the average cost of tilling 1200 acres (2 marks)
  - (ii) What is the marginal cost of tilling? (1 mark)
  - (iii) Calculate the breakeven price for tilling 500 acres. (5 marks)
- (f) Distinguish between the terms price and cost. (2 marks)

3. The following are options available to Joe in preparing a feed ration for his animals. Each ration is assumed to contribute the same weight gain to fatteners with a given beginning weight. Price of grain is \$4.00/kg and hay is \$3.00/kg.

Feed Ration	Hay	Grain	Input substitution Ratio	Price Ratio
A	1350	825		1.33
B	1130	900	2.93	1.33
C	935	975	2.60	1.33
D	770	1050	2.20	1.33
E	625	1125	***	1.33
F	525	1200	1.33	1.33
G	445	1275	1.07	1.33

- (a) Sketch the relationship between quantities of grain and hay used in the rations. N.B (Use the Y- axis for Hay) (4 marks)
- (b) What is the technical name of the curve generated in (a) above. (2 marks)
- (c) Fill in the blanks represented by \*\*\* (2 marks)
- (d) Farmer Joe is currently feeding **ration B** to his animals, should he switch to **ration C**? **Why?** (3 marks)
- (e) Which ration is the least cost combination? Why? (2 marks)
- (f) Identify three sources of risk associated with the above enterprise. (3 marks)
- (g) Identify two strategies that Joe can employ to reduce ONE of the risks associated with the above enterprise. (2 marks)
- (h) Farmer Joe does not keep records. **State TWO (2)** ways in which his business can be negatively impacted by this practice. (4 marks)
- (i) List and **explain TWO (2)** human resource challenges that Farmer Joe is likely to face in the operation of his business. (4 marks)
- (j) Discuss the impact of Joe's business on the socio-economic environment. (4 marks)

**TOTAL 70 MARKS**

