



# MACHAKOS UNIVERSITY

University Examinations for 2016/2017

**SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT**

**DEPARTMENT OF ENVIRONMENTAL STUDIES**

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF  
AGRICULTURAL EDUCATION AND EXTENSION**

**KBT 213: FARM MANAGEMENT**

**Date: 2/12/2016**

**Time: 11:00 – 1:00 PM**

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**Instructions: Answer ALL questions in section A and ANY TWO questions in section B**

**Section A: 30 MARKS**

**QUESTION ONE (COMPULSORY)**

- (a) Define the following terms
- (i) Farm management (2 marks)
  - (ii) Land fragmentation (2 marks)
  - (iii) Uncertainty (2 marks)
  - (iv) Agri-webinar (2 marks)
  - (v) Opportunity cost (2 marks)
- (b) Describe five characteristics of a good manager. (5 marks)
- (c) Explain two reasons for farm planning. (4 marks)
- (d) Describe five advantages of budgeting in farm management. (5 marks)
- (e) (i) Describe three types of management decisions that are made by a farm manager. (3 marks)
- (ii) Explain the term “diminishing marginal returns” as used in agriculture production (3 marks)

## SECTION B: 40 MARKS

### QUESTION TWO: (20 MARKS)

(a) Describe five steps that are followed used in decision making by a Farm manager.

(10 marks)

(b) Nyumba Coffee Ltd has identified a project in which coffee husks will be used to produce charcoal briquettes. The initial investment is estimated at Ksh 8 million. The useful life of the project is estimated to be 6 years after which it will be taken over by the mother company in Zimbabwe. The cost of capital is estimated at 12%.The expected inflows are as follows:

Year	1	2	3	4	5	6
Inflows (Ksh)	0	450,000	1,800,000	3,300,000	9,500,000	5,300,000

(i) Calculate the expected payback period

(10 marks)

### QUESTION THREE :( 20 MARKS)

(a) Describe five limitations of farm records and accounts in Farm management. (10 marks)

(b) The following information relates to Itibo farm for the year ended December 2014.

Item	Value (Kshs)
Maize sales	50,000
Wheat sales	45,000
Potatoes sales	27,500
Fertilizer costs	17,500
Seed costs	7,500
Machine hire	10,000
Machinery depreciation	2,030
Labour costs	8,000
Livestock feed cost	13,000
Interest on debt	1,500
Insurance	1,350

**Required**

- (i) Compute the Gross margin for Itibo farm for the year 2014 (5 marks)
- (ii) Compute the Net farm income for Itibo farm for the year 2014 (5 marks)

**QUESTION FOUR (20 MARKS)**

- (a) Describe five effects of land fragmentation in agriculture. (10 marks)
- (b) The following information is provided for Kesho farm for the financial year ending on June, 2016. Prepare an Enterprise budget for Beans for the financial year ending on June, 2016 (10 marks)

Particulars	Amounts (Ksh)
Main product	6277
By product	545
Seed	1245
Manure and fertilizer	530
Plant protection chemicals	402
Irrigation charges	190
Machine power	206
Human labour	1617
Interest on working capital	128
Depreciation on building and machinery	152
Interest on fixed capital	725

**QUESTION FIVE (20 MARKS)**

- (a) Describe five goals that influence planning on the farm. (10 marks)

(b) The following information relates the quantity of maize output (Y) to quantity of fertilizer, a variable input (X): Calculate:

(i) Average Physical Product (APP) (5 marks)

(ii) Marginal Physical Product(MPP) (5 marks)

Quantity of fertilizer (X)	14	16	18	20	22
Quantity of maize (Y)	198	220	234	240	236