



# MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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## University Examinations 2010/2011

### FIRST YEAR, SECOND SEMESTER EXAMINATIONS FOR CERTIFICATE IN AGRICULTURE

#### BUS 161: PRODUCTION AND MARKETING ECONOMICS

DATE: AUGUST 2010

TIME: 1½ HOURS

INSTRUCTIONS: Answer Question *one* which is Compulsory and any other *two* questions

#### QUESTION ONE – (30 MARKS)

- (a) Define production function. (2 Marks)
- (b) State the characteristics of variable inputs. (3 Marks)
- (c) Using relevant illustrations differentiate the budget line and the Iso cost curve. (6 Marks)
- (d) Explain the following:
  - (i) Technical rate of substitution. (6 Marks)
  - (ii) Marginal rate of substitution. (3 Marks)
  - (iii) Diminishing marginal rate of technical substitution. (8 Marks)
- (e) State the components of a market. (2 Marks)
- (f) State the characteristics of a monopoly (3 Marks)
- (g) State the difference between sales promotion and advertisement. (2 Marks)

#### QUESTION TWO – (15 MARKS)

- (a) A farmer observes that to produce 40 litres of milk he can choose alternative ways by combining hay and dairy meal as shown below:

(x <sub>1</sub> ) Hay	100	80	60	40	20	0.5
(x <sub>2</sub> ) Dairy Meal	0.5	1	4	8	14	40

Required:

- (a) On a table graph plot x<sub>2</sub> against x<sub>1</sub>. (4 Marks)

(b) Supposing that  $P_{x1} = 40/=$ ,  $P_{x2} = 16/=$  estimate the least cost combination. (8 Marks)

(c) Given that the price of milk is Ksh.40/kg. Calculate the optimal profit for the farm. (3 Marks)

**QUESTION THREE – (15 MARKS)**

(a) Using relevant illustrations explain the least cost combination criteria. (10 Marks)

(b) State the characteristics of perfect competitive market. (5 Marks)

**QUESTION FOUR - (15 MARKS)**

(a) Using relevant illustrations explain the stages of a production function. (10 Marks)

(b) Explain the importance of grading agricultural products. (5 Marks)

**QUESTION FIVE - (15 MARKS)**

(a) Explain the sources of monopoly power. (10 Marks)

(b) State the advantages of advertisement. (5 Marks)