CHUKA UNIVERSITY

UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT

AGBM 342: MANAGERIAL ECONOMICS

STREAMS: AGBM Y3S2 **TIME: 2 HOURS**

DAY/DATE: TUESDAY 09/08/2016 **8.30 AM – 10.30 AM**

INSTRUCTIONS:

- **Answer All Questions in Section A and any Two in Section B**
- **Answer each Question on separate pages**

Section A

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. (a) Discuss the role of business managers in attainment of a firm's objectives. [6 marks]

   (b) Outline four common objectives of a business firm. [8 marks]

   (c) Given that the unit selling price of a commodity is ksh. 100, the variable cost (AVC) is estimated to be kshs. 75 and the total fixed cost (TFC) is estimated to e 5,000,000. Calculate the break even quantity. [4 marks]

   (d) Suppose a firm's estimated demand curve has the following equations:
   Q = 220-P and its total cost function is: $TC = 1000 + 80Q - 3Q2 + (1/3)Q3$

   Determine:

   (i) An expression for the firm's total revenue function. [4 marks]

   (ii) The output level and price that will maximize profit (or minimize short run loss) for the firm. [4 marks]

(iii) The firm's economic profits or loss at the optimum point. [4 marks]

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

2. (i) A firms total cost function is $TC = 12 + 60Q - 15Q2 + Q3$ suppose the firm produces 10 units of output.

Determine:

(a) Total Fixed Cost (TFC) [2 marks]
(b) Total Variable Cost (TVC) [2 marks]
(c) Average Total Cost (ATC) [2 marks]
(d) Average Variable Cost (AVC) [2 marks]
(e) Marginal Cost (MC) [2 marks]

(ii) Using demand-supply analysis, explain the effects of each of the following on the value of the firm.

(a) A new advertising campaign increases the sales of the firm substantially. [5 marks]

(b) A new competitor enters the market. [5 marks]

3. (i) Write short notes on the following

(a) Goal of the firm [2 marks]
(b) Total product of labour [2 marks]
(c) Law of diminishing returns [2 marks]
(d) Returns to scale [2 marks]
(e) Short run production function [2 marks]

(ii) A company is considering the manufacture of two mutually exclusive products, product A and product B. Product A is a watch band and is specifically designed to fit only on the company's watches. Product B is watch band that is designed to be adapted to a variety of watches including these produced by competitors. The expected investment for each product is ksh 10,000. The expected cash flows for project A are shs. 2,000,000 per year for 8 years. The coefficient of variation is expected annual cash flows are 10% for project A is 10% and 15% for B. the cost of capital for project A is 10% and it is 15% for B. If only one of the projects is to be selected, which project should we select? [10 marks]

4. Suppose that an industry comprising two firms producing a homogenous product. Suppose that the demand functions for two profit maximizing firms in a duopolistic industry are: $Q1 = 50 - 0.5|P1 + 0.25P2\ Q2 = 50 - 0.P2 + 0.25\ P1$
Suppose, further that the firm's total cost function are $TCI = 4Q1\ TC2 = 4Q2$

Where P1 and P2 represent the prices charged by each firm producing Q1 and Q2 unit of output.

(i) What is the equilibrium price, profit maximizing output levels, and profits for each firm? [10 marks]

(ii) Explain the difference between price elasticity and income elasticity of demand and highlight their importance in managerial economics. [5 marks]

(iii) Describe the relationship between managerial economics and agribusiness management. [5 marks]
