"Investing in Africa's Future"

FACULTY OF MANAGEMENT AND ADMINISTRATION

MEC 401 MANAGERIAL ECONOMICS EXAM 2

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER/DECEMBER 2016

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DURATION: 3 HRS

INSTRUCTIONS

Answer question number 1 and any other three questions.

Total possible mark is **100**.

Start **each** question on a new page in your answer

Booklet.

1. (a) Demand estimation should primarily be an accurate function; however, there are many factors that may hinder credible estimation. Discuss**[5 marks]**

   (b) Discuss whether profit maximization is a realistic objective for the management of a firm.**[5 marks]**

   (c) A Clear understanding of consumer demand is fundamental to profit maximisation. Explain with the aid of illustrative diagrams or otherwise this statement.**[5 marks]**

   (d) Cost minimisation may be a viable strategy to foster profit maximisation. This is achieved because profit is equal to total revenues minus total cost. If costs are reduced, with constant revenues profit will increase. Explain in detail how a manager may determine the minimum per unit average cost. **[10marks]**

   (e) Many scholars tend to be disillusioned by the algebra of elasticity, however, there is a direct relationship between revenues and elasticity. Derive that relationship and demonstrate its use in decision making. **[5 marks]**

   (f) The following concepts in production theory are critical for decision making. Explain how you would use the following to enhance management decision making:

      (i) Returns to scale**[5 marks]**

      (ii) Relationship of the Marginal Product to the Total Product and the Average Product**[5 marks]**

2. Game theory is used in economics because of the realization that the performance of a firm is also dependent upon the strategies employed by its competitors The following pay off matrix captures various outcomes of a game between Africa University and the University of Zimbabwe in their executive post graduate programmes.

		UZ	
		Do not advertise	Advertise
Africa University	Do not Advertise	40; 40	160; , 45
	Advertise	--50, 71	180, 65

(a) We draw subtle lessons from the prisoners' dilemma. What are the lessons and how do we relate them to the above payoff matrix**[5 marks]**

(b) Suppose the game is a repeated game. Deduce the likely outcome and justify your response. **[5 marks]**

(c) If the outcomes in the payoff matrix now reflect costs of advertising. What will be the new outcome of a maxminstrategy. **[5 marks]**

(d) Game theory asserts that the profitability of a firm is a function of the activities of other firms in the industry. Demonstrate how the knowledge of repeated games and Nash equilibrium may enhance the profits realized by your firm. **[5 marks]**

3. (a) Demonstrate two methods you would use to determine the optimal labour input and optimal capital input given a Cobb Douglas production function of the form $Q = 180L^{0.375}K^{0.625}$ And that the wage rate is $4 per hour and the price of the machine is $1 per hour. The Total cost is $10 000.00 Use the Langrangian technique to determine the optimal output, Capital units and Labour units. **[5 marks]**

(b) Suppose two products A and B are jointly produced, illustrate and explain how a manager can price these goods. **[5 marks]**

(c) Monopoly production generate a deadweight loss. What do you understand by this concept? **[5 marks]**

(d) The class president remarked that the 'economic profits Africa University is realizing from its off-campus programs are short lived' Appeal to economic concepts to justify this statement. **[5 marks]**

4. (a) Illustrate and explain long run profit maximization for a perfectly competitive firm and a monopoly.**[5 marks]**

(b)Under what circumstances should you defend pure competition as the most efficient market structure?**[5 marks]**

(c) Fungayi Luxury Airlines have a capacity to carry a maximum of 10 000 passengers per month from Hârare to Victoria Falls at a fare of $500. Variable costs are $100 per passenger and fixed costs are $30 000 per month. How many passengers should be carried per month to break even? **[5 marks]**

(d)A monopolist has production function $Q = \mathbf{L}^{0.5}\mathbf{K}^{0.5}$ A unit of labour costs $w = 15$ and a unit of capital costs $r = 10$. If the total cost is pegged at $ 900.00 Use one methods to determine the optimal mix of capital and labour that will maximize output **[5 marks]**

5. (a)You are the manager of a firm that produces output in two plants. The demand for your firm's product is P = 80 - Q, where Q = Q1 + Q2. The marginal cost associated with producing in the two plants are MC1 = Q1 and MC2 = 8.
How much output should be produced in plant 1 in order to maximize profits? **[5 marks]**

(b) Discuss, explain and illustrate the following concept in information economics

i. information asymmetry **[5 marks]**

ii. adverse selection **[5 marks]**

i. Moral hazard **[5 marks]**

(b) Evaluate the statement. "The reason monopolists always make excessive profits is that they face a nearly perfectly inelastic demand curve and are thus able to charge an excessively high price" **[5 marks]**

6 . (a) Moral hazard concept emanates from the fact that buyers and sellers have different sets of information in terms of product quality, interoperability, durability and design. State whether this statement is TRUE/FALSE/UNCERTAIN. Justify your response. **[5 marks]**

(b) It is better to hang rather than fall. This seems to be the message from the MAXMIN strategy. Demonstrate using a business payoff matrix. **[5 marks]**

(c) Relate the prisoners' dilemma concept to business. **[5 marks]**

(d) Tafadzwa is a known cross boarder vendor. She observed that the demand for white slacks was dependent on the demand for black slacks. She increased the price of white slacks from $12 to $15 the demand for black slacks rose from 80 to 120. Calculate, classify, interpret, illustrate and infer the relevant elasticity. **[5 marks]**

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