

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF MASTER
OF BUSINESS ADMINISTRATION

MBAD 802: MANAGERIAL ECONOMICS

STREAMS: MBAD

TIME: 2 HOURS

DAY/DATE: TUESDAY 06/04/2021

2.30 P.M. – 5.30 P.M.

INSTRUCTIONS: Answer question ONE and any other TWO

QUESTION ONE

(a) Prof. Lionel Robbins defined economics as “the science, which studies human behaviour as a relationship between ends and scarce means which have alternative uses”. In light of this statement critically examine the concepts of choice, scarcity, and opportunity cost as used in decision making in economics [5 marks]

(b) The treasure of Amaro Canned Fruits has projected the cash flows of 4 projects (A, B, C & D) as shown in the table below:

Year	Project A	Project B	Project C	Project D
Rate of return (%)	10	8	6.5	4.5
0	-100,000	-200,000	-150,000	-500,000
1	30,000	47,000	40,000	135,000
2	24,000	38,000	55,000	125,000
3	16,000	29,000	10,000	200,000
4	18,000	42,000	66,000	105,000

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5	25,000	48,000	22,500	34,700

- (i) Based on the payback period, which project should be adopted? [2 marks]
- (ii) Compute NPV for each of the three projects [2 marks]
- (iii) Suppose that the four projects are independent. Which project should be adopted based on the profitability index rule? [2 marks]
- (c) The production of KPLC Co. Ltd is defined by a Cobb-Douglas production function,
 $Q = 250K^{\frac{4}{5}}L^{\frac{1}{5}}$ where K and L represent units of capital and labour respectively. Determine:
- (i) The marginal product of capital [2 marks]
- (ii) The marginal product of labour [2 marks]
- (d) The total cost of Kirimi's workshop at Nkubu area is
 $TC = 100 + 4Q + 8Q^2$
Determine:
- (i) What is marginal cost when output is 10 and 20? [5 marks]
- (ii) Calculate the average costs also when output is 10 and 20 respectively [5 marks]
- (iii) Explain the concept to breakeven point using diagrams. If TFC = 1.5 million shillings and the AVC is ksh. 80 and the unit selling price is 250 shillings, calculate the break-even quantity of output [10 marks]
- (iv) Differentiate between contractionary and expansionary monetary policies [5 marks]

QUESTION TWO

- (a) The function of a decision maker is very easy under condition of certainty. It is generally held that the condition of certainty does not really exist in business circles. Discuss the main areas of uncertainty in making business decisions in management of companies. [7 marks]
- (b) Given the cost function of firm A is $C(x) = 500 + 3x + 0.01x^2$ and the demand function (the price function) is $p(x) = 10$ where x is the number of units produced, determine profit maximizing units. [5 marks]
- (c) Explain the nature and scope of managerial economics [3 marks]

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- (d) Discuss the relationship between the firm's demand and average cost curves [5 marks]

QUESTION THREE

- (a) Economists use several important criteria to evaluate capital investments. With clear definitions, illustrations, and examples, discuss any 3 investment appraisal techniques, and stating their merits and demerits [5 marks]

- (b) A manager is planning to spend \$15,000 on advertising. It costs \$2,000 per minute to advertise on TV and \$800 per minute to advertise on radio. If he buys x minutes of TV advertising and buys y minutes of radio advertising, then the potential revenue (\$'000) is given by: $f(x, y) = 6x + 5y + 2xy - 2x^2 - y^2$. Using the Lagrange multiplier method, find the optimal values of x and y that maximize revenue $f(x, y)$ and also find the maximum revenue.

[5 marks]

- (c) A firm's total cost function is given by $TC = 20 + 55Q - 30Q^2 + Q^3$ where Q is the number of units produced. Suppose that the firm produces 10 units, determine:

- (i) Total fixed Cost [1 mark]
- (ii) Total Variable Cost [1 mark]
- (iii) Average total cost [1 mark]
- (iv) Average Variable Cost [1 mark]
- (v) Marginal Cost [1 mark]

- (d) What is the difference marginalism and incrementalism? State the significance of marginal analysis in decision making. [5 marks]

QUESTION FOUR

- (a) Using a well labeled diagram show short-run equilibrium of firm under perfect competition [8 marks]

- (b) A company produced a commodity with ksh 780,000 fixed costs. The variable costs were estimated to 25% of the total revenue received on selling the product at the rate of ksh 6 per unit. Find the total revenue, total cost, profit functions, and break-even point functions.

[7 marks]

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- (c) Discuss two instruments of fiscal policy and showing how they have been used in Kenya in addressing the Covid 19 pandemic [5 marks]

QUESTION FIVE

- (a) The Covid 19 pandemic has had adverse effects on the Kenyan economy eliciting various responses by both the government and central bank of Kenya (CBK) to cushion Kenyans and ensuring smooth continuous operation of the economy. Discuss two fiscal and two monetary policy instruments that the government of Kenya has resorted to, clearly explaining their main objectives and impacts. [8 marks]

- (b) The market supply and demand equation for a given product are given by the expressions:
 $Q_D = 250 - 60P$; $Q_S = -400 + 70P$

Determine the equilibrium price and quantity [1 mark]

- (c) What are equi-marginal principle and time perspective principle? Describe their use in allocating of resources of a firm using their illustrations [6 marks]

- (d) Illustrate with clear diagrams the difference between shift and movement along demand curve. [5 marks]
