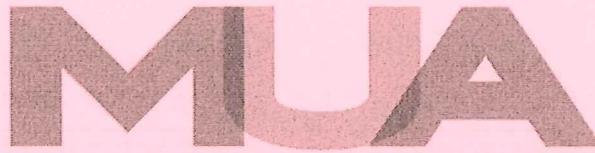


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**UNDERGRADUATE UNIVERSITY EXAMINATIONS**  
**SCHOOL OF MANAGEMENT AND LEADERSHIP**  
**DEGREE OF BACHELOR OF MANAGEMENT AND LEADERSHIP**

**BMT 300/BMT 202 : MANAGERIAL ECONOMICS**

**DATE: 26<sup>TH</sup> MARCH 2025**

**DURATION: 2 HOURS**

**MAXIMUM MARKS: 70**

**INSTRUCTIONS:**

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

**QUESTION ONE**

**Read the Case Study below carefully and answer the questions that follow:**

The demonstrations in Kenya had widespread and multifaceted effects on the economy. Key sectors like tourism, retail, and agriculture were hit hard, reducing GDP growth and leading to job losses and increased poverty. The political uncertainty diminished investor confidence, delaying investments crucial for economic development. In the long term, these protests highlighted the need for political stability and policy reforms to foster a more resilient economy. This emphasizes the importance of maintaining a stable political environment to support sustained economic growth in developing economies like Kenya.

The protests had a profound effect on the retail business, influencing key aspects of managerial economics such as demand, supply chain, labor costs, and strategic planning. By understanding these economic variables, managers are better equipped to make informed decisions that minimize losses and adjust to the changing business environment. This case highlights the importance of risk management, flexibility in supply chain logistics, and adapting to shifts in consumer behavior, all of which are critical for maintaining profitability in unpredictable situations like protests or demonstrations.

**Required:**

- a) Considering the disruptions to supply chains during the protests, demonstrate the concept of price elasticity of demand apply to the Kenyan economy, particularly for essential goods versus luxury items. **(10 Marks)**
- b) Analyze **five** ways which consumer behavior theory might affect the uncertainty caused by political unrest influence consumer preferences and spending patterns during periods of demonstrations. **(5 Marks)**
- c) Evaluate three ways which the consumers will reach a new equilibrium point when faced with limited access to goods and fluctuating prices in the market. **(6 Marks)**

- d) Examine the short-term and long-term strategic adjustments that managers will make to manage risks and minimize the impact of demonstrations on their operations. **(4 Marks)**

### QUESTION TWO

- a) The following production function is given by the Cobb-Douglas function is from a mining firm in Kenya.

$$Q = 20L^{0.55} K^{0.25}$$

- i. Compute the marginal products of Labour and Capital. **(2 Marks)**
  - ii. What is the marginal rate of the technical substitution of capital for labour. **(4 Marks)**
- b) Explain the concept of a "first-mover advantage" and how this affects the strategic choices of other firms in the market. **(9 Marks)**

### QUESTION THREE

- a) Company Ressa International is considering building a new manufacturing plant. The following data has been provided:

Initial Investment (Cost): Kshs 5 million

Annual Operational Costs: Kshs 500,000

Expected Annual Revenue: Kshs 1.5 million

Project Lifespan: 10 years

Discount Rate: 5%

The company requires a minimum NPV of 2 million.

- i. Calculate the total costs of the project over 10 years, considering both the initial investment and annual operational costs. **(4 Marks)**
- ii. Calculate the total benefits over 10 years, using a discount rate of 5%. **(4 Marks)**

iii. Advise if the project should be undertaken. **(2 Marks)**

b) Explain **five** role of managerial economics in optimizing resource allocation and strategic planning. **(5 Marks)**

#### QUESTION FOUR

a) A construction company wants to analyze the relationship between its advertising expenditure and sales revenue. The following data was collected over eight months

Month	Advertising Spend (X)	Sales Revenue (Y)
1	25,800	50,000
2	30,000	150,650
3	45,300	95,000
4	50,000	129,000
5	60,000	400,000
6	75,400	380,000
7	80,000	450,000
8	85,000	265,000

i. Using simple linear regression, determine the equation of the regression line ( $Y = a + bX$ ) that best fits the data. Calculate the slope (b) and y-intercept (a) of the regression line. **(8 Marks)**

ii. Evaluate the expected sales revenue (Y) when advertising expenditure (X) is Kshs 90,000. Interpret the results in the context of the data provided. **(2 Marks)**

b) Evaluate five factors that affect the demand for a new product in an agricultural firm that engages in exports. **(5 Marks)**