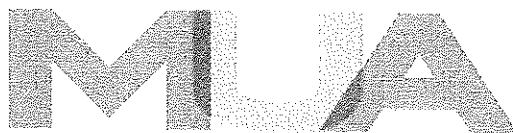


The
Management
University
of Africa



Sponsored by the Kenya Institute of Management

POST GRADUATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DEGREE OF MASTER OF BUSINESS ADMINISTRATION

MBA 509: MANAGERIAL ECONOMICS

DATE: 4TH AUGUST 2025

DURATION: 3 HOURS

MAXIMUM MARKS: 60

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 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:

A) Kenya and the European Union Economic Partnership Agreement (EPA)

Background

In recent years, Kenya has actively engaged in international trade negotiations, most notably with the European Union (EU). As a member of the East African Community (EAC), Kenya was part of the collective negotiations for an Economic Partnership Agreement (EPA) with the EU, which aims to promote trade between the regions by reducing tariffs and facilitating investment.

The EPA grants Kenya duty-free and quota-free access to the EU market for its exports, notably agricultural products like flowers, tea, and coffee. In return, Kenya is required to gradually open up its markets to EU goods. However, there have been concerns among Kenyan manufacturers and farmers about increased competition and potential negative impacts on local industries.

Additionally, exchange rate volatility and the depreciation of the Kenyan Shilling have affected the cost of imported goods and the profitability of exports.

Required:

- i. Explain how the theory of comparative advantage justifies Kenya's participation in the EPA with the EU. (2 Marks)
- ii. Analyse two potential benefits and two potential risks of the EPA for Kenya. (4 Marks)
- iii. Discuss the likely impact of the depreciation of the Kenyan Shilling on its international trade under the EPA. (2 Marks)

B) The Greenfield Highway Project**Background:**

The Republic of Nyika is a developing country with a population of 45 million. The government, through the Ministry of Transport and Infrastructure, has proposed the construction of a 200 km dual carriage highway between its capital city, Nyika Central, and the major port city of Malewa. This highway, known as the *Greenfield Highway Project*, is estimated to cost KES 80 billion (approx. USD 600 million) and is expected to reduce travel time by 50%, increase trade volumes, and stimulate economic development along the corridor.

The funding options include:

1. Full government financing through public borrowing.
2. A Public-Private Partnership (PPP) where a private consortium builds and operates the highway for 25 years before handing it back.
3. Seeking grants and concessional loans from international development partners.

A feasibility study projects the Net Present Value (NPV) of the project at KES 25 billion, with an Internal Rate of Return (IRR) of 12%, while the government's benchmark discount rate is 8%.

However, there is public debate. Some argue the funds could instead be used to improve rural health facilities, education infrastructure, and water access in underserved counties.

Required:

- i. Assess three key criteria that the government should consider when making public investment decisions like the Greenfield Highway. **(3 Marks)**
- ii. Evaluate the potential advantages and disadvantages of using a Public-Private Partnership (PPP) to finance the highway project. **(2 Marks)**
- iii. Interpret the investment implication of a project with an IRR of 12% while the discount rate is 8% as stated above. **(1 Mark)**

- iv. Suggest how the government can balance between economic growth objectives and social equity concerns in public investment decisions. (1 Mark)

C) SmartTech Manufacturing Ltd

Background:

SmartTech Manufacturing Ltd. produces and sells a popular gadget called the "EcoBox." The company is analyzing its profitability and cost behavior to make better pricing and production decisions. The finance department has provided the following information for the month of April:

- Selling Price per unit: KES 5,000
- Variable Cost per unit: KES 3,000
- Fixed Costs per month: KES 1,000,000
- Units sold in April: 1,000 units

Management is considering increasing the advertising budget by KES 200,000, which is expected to increase sales volume by 400 units. They want to know whether this decision is economically justifiable.

Required:

- Calculate the Contribution per unit and the P/V Ratio. (2 Marks)
- Compute the Break-even Sales (in units and KES). (1 Mark)
- What is the current profit or loss for April? (2 Marks)

D) TechNova Solutions and the Profit Puzzle

Background:

TechNova Solutions is a Nairobi-based tech start-up founded in 2020, specializing in mobile app development and IT consultancy. Within three years, it grew rapidly, capturing a significant share of the East African market. In 2023, despite intense competition and rising operational costs, TechNova recorded extraordinary profits. The

management team attributed this to its innovation, quick adaptation to market trends, and aggressive marketing strategy. However, a financial analyst argued that these profits could be explained using classical economic theories of profit.

Required:

- i. Identify and explain any two economic theories of profit that can help explain TechNova's extraordinary profits. **(2 Marks)**
 - ii. Recommend a combination of theories that most appropriately explain TechNova's success. Justify your answer. **(3 Marks)**
- E) Discuss how government regulation can influence market structures, using the telecommunications or energy sector as an example. **(2 Marks)**
- F) ABC Manufacturing is planning to expand its operations by investing in new machinery and increasing the size of its plant. The firm's management believes that in the long run, they can adjust all inputs to optimize production. However, they are concerned about whether increasing the scale of production will lead to higher efficiency. Explain the concept of production in the long run, and discuss how ABC Manufacturing might experience economies or diseconomies of scale. Support your answer with relevant examples. **(3 Marks)**

QUESTION TWO

A. Optimal Input Usage at Green Grow Farms

Background:

Green Grow Farms is a mid-sized agricultural company based in Nakuru, Kenya, specializing in the production of tomatoes. The company uses two primary inputs: labor (workers) and fertilizer. Recently, management noticed an increase in production costs and decided to evaluate whether resources were being used optimally.

The production manager conducted an analysis and found the following marginal products (MP) and input prices:

Input	Marginal Product (MP)	Price per Unit
Labor	15 kg of tomatoes	KES 300
Fertilizer	20 kg of tomatoes	KES 500

The current output price for tomatoes is KES 50 per kilogram.

Required:

- i. Examine the condition for optimal input usage in production. (2 Marks)
 - ii. Is Green Grow Farms using labor and fertilizer optimally? Show calculations. (3 Marks)
 - iii. Evaluate the economic implication of continuing with the current input mix. (1 Mark)
 - iv. Recommend key steps that management should take to move toward optimal input usage (2 Marks)
 - v. If the price of fertilizer falls to KES 400, should the firm change its strategy? Explain. (2 Marks)
- B.** A person has a utility function $U = X \times Y$. If their budget is Ksh100, the price of X is Ksh10, and Y is Ksh5, how should they allocate their income to maximize utility? (2 Marks)
- C.** Illustrate how utility theory is applied in risk and insurance decisions (2 Marks)
- D.** Explain diminishing marginal utility using a real-life example. (1 Mark)

QUESTION THREE

A. Choosing Between Food and Leisure – The Case of Mary

Mary is a university lecturer who earns a monthly income of KES 60,000. She spends her income on two main goods: Food and Leisure activities (like going out, travel, and entertainment). The price of food is KES 600 per unit, and the average cost of leisure activities is KES 1,200 per unit.

Mary wants to allocate her income in such a way that she maximizes her satisfaction (utility) given her income constraint. Her preferences can be represented by a set of indifference curves, each showing different combinations of food and leisure that yield the same level of satisfaction.

Budget Line Information

Let:

- $P_F = 600$ (price of food)
- $P_L = 1200$ (price of leisure)
- $I = 60,000$ (monthly income)

Budget equation:

$$600F + 1200L = 60,000$$

Dividing the equation by 600:

$$F + 2L = 100$$

This is Mary's budget line. It shows the combinations of food (F) and leisure (L) she can afford.

Required:

- i. What is the slope of Mary's budget line, and what does it represent? (2 Marks)
- ii. Suppose Mary chooses a bundle where she consumes 40 units of food. How many units of leisure can she afford? (3 Marks)
- iii. Explain the concept of an indifference curve in this context. (3 Marks)
- iv. What is the condition for utility maximization using the indifference curve and budget line? (2 Marks)

- B. Given the data below, identify the stage of production for each level of labor input after computing Marginal Product and Average Product (5 Marks)

Labor (units)	Total Product (TP)	Marginal Product (MP)	Average Product (AP)
1	10	-	-
2	25	-	-
3	39	-	-
4	48	-	-
5	55	-	-
6	58	-	-
7	57	-	-

QUESTION FOUR

A. Navigating Economic Shifts at Eco Ride Ltd

Background:

Eco Ride Ltd is a mid-sized electric vehicle (EV) manufacturer based in Nairobi, Kenya. The company has experienced rapid growth in the past five years, driven by government subsidies, rising fuel prices, and increased environmental awareness. However, recent shifts in the business environment are presenting new challenges:

- The Kenyan government has cut back EV subsidies due to fiscal constraints.
- Global lithium prices have soared due to supply chain disruptions.
- A new competitor from China has entered the local market with lower-priced EVs.
- Interest rates have risen; affecting Eco Ride's financing costs.
- Consumer preferences are shifting towards hybrid vehicles due to range anxiety in fully electric cars.

Eco Ride's management team must decide how to adjust their production, pricing, and marketing strategies to sustain profitability.

Required:

- i. Analyse three external environmental changes that influence affect managerial decision-making at Eco Ride Ltd. **(3 Marks)**
- ii. Apply the concept of opportunity cost to Eco Ride's decision to continue producing fully electric vehicles versus shifting to hybrid models. **(2 Marks)**
- iii. Using the principles of demand elasticity, assess how the increase in EV prices might affect EcoRide's sales. **(2 Marks)**
- iv. Explain how the changing macroeconomic environment (e.g., rising interest rates) affects EcoRide's investment and production decisions. **(3 Marks)**

B. Smart Bite Ltd. is a mid-sized company that produces organic snack bars and distributes them across Nairobi and major towns in Kenya. Recently, three other firms have entered the market, offering similar products at comparable prices. Smart Bite's management has noticed a reduction in their market share and profitability. The marketing director suggests reducing prices to regain customers, while the operations director argues for investing in product differentiation instead.

Required: Based on the above scenario:

- i. Assess the most likely market structure in which Smart Bite Ltd. operates. **(1 Mark)**
- ii. Justify your answer with features observed in the case. **(1 Mark)**
- iii. Evaluate the pros and cons of the two strategic options (price reduction vs. product differentiation) in the identified market structure? **(2 Marks)**
- iv. Recommend the best strategic response for Smart Bite Ltd. and justify your recommendation. **(1 Mark)**

