



Kasarani Campus  
Off Thika Road  
P. O. Box 49274, 00101  
NAIROBI  
Westlands Campus  
Pamstech House  
Woodvale Grove  
Tel. 4442212  
Fax: 4444175

**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATIONS, 2024/2025 ACADEMIC YEAR**  
**SECOND YEAR, FIRST SEMESTER EXAMINATION**  
**FOR THE DEGREE OF BACHELOR OF SCIENCE IN MATHEMATICS**  
**KFI 2201 BUSINESS ECONOMICS**

**Date: 14<sup>TH</sup> AUGUST 2024**  
**TIME: 8:30AM – 10:30 AM**

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE: COMPULSORY (30 MARKS)**

**Strategic Reorganization for Business Efficiency and Growth**

XYZ, a mid-sized electronics company based in Southeast Asia, specializes in manufacturing high-quality electronic devices such as smartphones, tablets, and other related accessories. The company has been operating for over a decade and has built a reputation for innovative products and reliable customer service. Recently, the management of XYZ Electronics decided to reorganize their production process to improve efficiency, reduce costs, and better meet market demand. The initial production setup comprised of a centralised manufacturing plant, sequential production line, in-house manufacturing and batch production. This setup was marred by several challenges among them high production costs, low product demand, inefficiencies, inventory management and rigidity in their production processes. XYZ therefore implemented a comprehensive reorganization strategy which entailed establishment of satellite plants, adopting lean manufacturing principles, outsourcing and strategic partnerships, as well as flexible production systems. This strategy brought significant improvements in terms of cost reduction, increased efficiency, increased demand and enhanced flexibility. Through the successful address of its initial challenges, XYZ positioned itself for sustained growth and competitiveness in the dynamic electronics market.

**Answer the following questions based on the case study above;**

- The company undergoes production of electronics that allows it to be competitive in the global market. As a student of business economics describe this process **(2 Marks)**
- Suppose that the company operates in the short run before re-organization, describe the **THREE** levels of production which it went through as it continues production process. **(6 Marks)**
- The case study has demonstrated that one of the reorganization strategies was to reduce production costs. These costs could be classified into either implicit or explicit costs. Outline the implicit costs incurred by this company which go unrecorded in their books of accounts **(4 Marks)**
- The company operates in a competitive industry and it requires to do proper demand forecasting so as to ensure proper and efficient inventory management being one of the strategies towards addressing their challenges. Assume that expert-opinion method is adopted, explain any **THREE** strengths of this method when used in demand forecasting. **(6 Marks)**
- The reorganization strategies by XYZ's management resulted into economies of scale in its operations. Describe **FOUR** types of real economies of scale that XYZ experiences. **(6 Marks)**
- Assume the total revenue function of XYZ is specified as:  $R(Q) = 4Q^3 + 2Q^2 + Q^4$ 
  - Explain the marginal revenue and average revenue concepts as used in production **(2 Marks)**
  - Using appropriate formulas, estimate the average product (AP) and marginal product (MP) using the total revenue function specified in (i) above. **(4 Marks)**

**QUESTION TWO: (20 MARKS)**

- Discuss any **FOUR** diverse areas encompassed within the scope of business economics, emphasizing the amalgamation of economic principles with practical business applications to aid management in decision-making processes and future strategic planning **(8 Marks)**

b) Below is utility schedule of Mangoes that an individual consumed in a week;

No of Units	Total Utility
0	0
2	24
4	38
6	46
8	50
10	50
12	48
14	42

- Calculate the Marginal Utility Values for each additional unit of mangoes consumed (4 Marks)
  - Show your results using a well labelled utility diagram (4 Marks)
- c) Explain why business managers should incorporate the concept of elasticity in their investment decisions. (4 Marks)

**QUESTION THREE: (20 MARKS)**

- Shifts in a price-demand curve may take place owing to the change in one or more determinants of the demand for a commodity apart from price. Explain **FOUR** reasons behind a leftward shift (8 Marks)
- Statistical methods of demand forecasting utilize both historical data and cross-sectional data. Describe any **THREE** statistical methods that a firm can use to project its future demand. (6 Marks)
- Describe any **THREE** characteristics of 'utility' that portrays it as 'a want satisfying power' (6 Marks)

**QUESTION FOUR: (20 MARKS)**

- Traditional economic theory has developed along **TWO** methodologies of analysing the nature of business economics. With an example in each methodology, describe these two methodologies. (6 Marks)
- An indifference curve is a schedule that indicates different combinations of two commodities which yield equal satisfaction to a consumer. Explain **FOUR** characteristics that make the indifference curve to obey the law of diminishing marginal rate of substitution. (8 Marks)
- Explain **THREE** assumptions of a production function which can be adopted by any small-scale industry in their operations. (6 Marks)

**QUESTION FIVE: (20 MARKS)**

- A retailer's fixed cost is KES. 50,000 and the variable costs are 12% of net sales. Fixed and variable costs are met out of the business' gross margins. The table below presents a summary of profit margin and sales for this retailer.

Products	Profit margin on selling price	Percentage of sales
Pens	40%	30%
Pencils	30%	10%
Exercise books	35%	40%
Carbon sheets	50%	20%

- Compute the contribution margin for each product (3 Marks)
  - Calculate the Break-Even point for this retailer (3 Marks)
- Cost-Benefit Analysis (CBA) can be used systematically to evaluate the potential costs and benefits of a decision or project. Briefly describe steps followed in conducting CBA. (8 Marks)
  - Financial advisors recommend evaluation of both short-term and long-term economic implications when considering IT investment projects. Briefly describe any **SIX** key economic considerations that organizations should take into account when making such investment decisions. (6 Marks)