



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2023/2024

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF  
BACHELOR OF PROCUREMENT AND LOGISTICS MANAGEMENT

### BBS 3276: INVENTORY MANAGEMENT

DATE: APRIL 2024

TIME: 2 HOURS

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INSTRUCTIONS: Answer question *one* and any other *two* questions

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#### QUESTION ONE (30 MARKS)

Mr. Ali a procurement and logistics manager of XYZ company, surveyed the ten most commonly used components in 2022/2023 financial year and provided the following inventory data:

Item number	121	122	123	124	125	126	127	128	129	130
Unit cost (Kshs)	5	11	15	8	7	10	20	4	9	12
Annual demand	48,000	2,000	300	800	4,800	400	18,000	300	5,000	500

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#### Task:

- Demystify the importance of using ABC analysis technique in the business (6 Marks).
- Calculate the annual usage and the usage of each item as a percentage of the total cost (6 Marks).
- Sort the items usage as a percentage of the total cost, calculate the cumulative percentage and classify the items (6 Marks).

**NB:** There are 10 items, so each item accounts 10% usage.

- d) Report the findings of the analysis to the company as per the calculations results (6 Marks).
- e) Plot the cumulative percentage usage against the cumulative percentage of items (6 Marks).

**QUESTION TWO (20 MARKS)**

- a) The economics of stock control can be determined by an analysis of acquisition costs, holding costs and costs of stock outs. Discuss (10 Marks).
- b) In the contemporary business environment world class organisations are embracing information technology (IT) in order to gain competitive edge in the market. In view of this observation discuss the application of IT in inventory management in a manufacturing plant (10 Marks).

**QUESTION THREE (20 MARKS)**

- a) Discuss the rationale behind variety reduction and standardization in the contemporary business environment (10 Marks).
- b) Identify and explain the key methods used in food processing firms to mitigate escalation of carrying stocks (10 Marks).

**QUESTION FOUR (20 MARKS)**

- a) Analyse classification of inventory in line with a vehicle assembling plant in Kenya (10 Marks).
- b) Supply chain experts regard inventory management as a springboard of organisations performance. Justify this proposition in the context of a manufacturing plant in Kenya (10 Marks).

**QUESTION FIVE (20 MARKS)**

Write short notes in line with the following inventory management terms:

- a) Buffer stock (4 Marks).
- b) Dependent demand (4 Marks).
- c) Obsolete stock (4 Marks).
- d) Economic order quantity (4 Marks).

e) Vendor managed inventory

(4 Marks).