



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BUSINESS & ECONOMICS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF LOGISTICS
AND SUPPLY CHAIN MANAGEMENT
3RD YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR
MAIN

COURSE CODE: BLM 3314

COURSE TITLE: INVENTORY MANAGEMENT

EXAM VENUE:

STREAM: (BLM)

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer questions ONE and ANY other TWO questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE (COMPULSORY)

- (a) Describe any **FIVE** critical symptoms of poor Inventory management in an organization
(10 marks)
- b) Discuss any **FIVE** merits and demerits of Fixed Order Interval Models of Inventory management.
(10 marks)
- c) Discuss **FIVE** advantages of using ABC analysis inventory control technique to a large manufacturing firm.
(10 marks)

QUESTION TWO

- a) Describe any **FOUR** costs associated with holding of stocks. (8 marks)
- b) SaveMart needs 1000 coffee makers per year. The cost of each coffee maker is \$78. Ordering cost is \$100 per order. Carrying cost is \$20 of per unit cost. Lead time is 5 days. SaveMart is open 360 days/yr.
- i. Find the EOQ Model? (3 marks)
- ii. How many times per year does the store reorder? (3 marks)
- iii. What is the length of order cycle? (3 marks)
- iv. What is the total annual cost if the EOQ quantity is ordered? (3 marks)

QUESTION THREE

- a) Describe **FIVE** specific reasons that would make a firm to hold inventories or stocks.
(5 marks)
- b) The maintenance department of a large hospital uses about 180 cases of liquid cleanser annually. Ordering costs are \$25, carrying costs are \$5 per case a year, and the new schedule indicates that orders of less than 45 cases will cost \$2.0 per case, 45 to 69 will cost \$1.7 per case, more than 70 cases will cost \$1.4 per case. Determine the optimal order quantity and total cost.
(15 marks)

QUESTION FOUR

- a) Explain any **SIX** assumptions underlying the Economic Order Quantity (EOQ) Model.
(6 marks)

- b) The annual demand for a product is 3600 units with an average of 12 units per day. The lead time is 10 days. The ordering cost per order is kshs. 10 and the annual carrying cost is 25% of the value of inventory. The price of per unit is kshs. 3.

Find:

- i) The Economic Order quantity (4 marks)
- ii) The Purchase cycle time (3 marks)
- iii) The Total inventory cost per year (3 marks)
- iv) If the safety stock of 100 units is considered, what will be the reorder level and the total annual cost of inventory which will be relevant to the inventory decision? (4 marks)

QUESTION FIVE

- a) Describe **FIVE** the general classification of inventory types. (5 marks)
- b) Discuss **FIVE** benefits an organization can get by embracing Just-In-Time (JIT) approach for inventory management. (5 marks)
- c) An oil manufacturer purchases lubricants at the rate of Kshs. 42 per piece from a vendor. The requirement of these lubricants is 1800 per year. What should be the order quantity per order, if the cost per placement of an order is Kshs. 16 and the inventory carrying charge unit per year Kshs. 20. (10 marks)

JARAMOGI ODINGA OGINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

Bachelor of Logistics and Supply Chain Management

BLM 3314: INVENTORY MANAGEMENT

Lecturer: Aleri Odaya C.

Course Outline

Course objectives

The course intends to provide the students in the field of Inventory Management solid understanding of the basic terms, concepts and in-depth understanding of Inventory Management in logistics as they manage Logistics in different environments.

Course content

1. Basic Inventory Concepts
2. Why Hold Inventory
3. Types of Inventory,
4. Basic Inventory Management,
5. Inventory Management under Conditions of Certainty
6. Inventory Management under Uncertainty
7. Calculating Fill Rate
8. How Much to Order: Fixed Order Interval Model,

9. Symptoms of Poor Inventory Management

Assessment

Course work

- Assignment(s) 10%
- Continuous assessment test 20%
- Final Examination 70%

Suggested references

1. Shridhara Bhat (2011), “Logistics Management”, Himalaya publishing house