



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BUSINESS & ECONOMICS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS
ADMINISTRATION
3RD YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR
MAIN

COURSE CODE: BLM 3314

COURSE TITLE: INVENTORY MANAGEMENT

EXAM VENUE: STREAM: (BLM)

DATE: 1/12/20 EXAM SESSION: 3-6 PM

TIME: 3 HOURS

Instructions:

- 1. Answer questions ONE and ANY other TWO questions**
- 2. Candidates are advised to write on the text editor provided, or to write on a foolscap, scan and upload alongside the question.**
- 3. Candidates must ensure that they submit their work by clicking 'FINISH AND SUBMIT ATTEMPT' button at the end.**

QUESTION ONE (30 MARKS) COMPULSORY

- a) Highlight the costs incurred for under-investment in inventory and which results in inadequate stocks of materials. (4 marks)
- b) Outline the Symptoms of Poor Inventory Management. (6 marks)
- c) Define the following terms as used in inventory management
- i. Reserve Stock (2 marks)
 - ii. Order cycle time (2 marks)
 - iii. Case fill rate (2 marks)
 - iv. Transit Inventory (2 marks)
- d) The following data relate to a given stock item.
Normal Usage 1,300 per day
Minimum Usage 900 per day
Maximum Usage 2,000 per day
Lead time 15 - 20 days
EOQ 30,000
Required: Calculate the various control levels. (12 marks)

QUESTION TWO (20 MARKS)

- a) Identify any FOUR costs of holding stocks. (4 marks)
- b) Explain using examples the costs that relate primarily to the consequences of over-investment in inventories or excessive stocks. (6 marks)
- c) “The ultimate objective of all manufacturing controls is to realise a profit through the operation of the business.” Discuss the objectives of inventory control. (10 marks)

QUESTION THREE (20 MARKS)

- a) Identify the specific reasons that would make a firm to hold inventories or stocks. (5 marks)
- b) Explain the types of inventory management uncertainties. (8 marks)
- c) Suppose the following item is being managed using a fixed-order quantity model with safety stock.
Annual demand (D) = 1,000 units
Order quantity (Q) = 300 units
Safety stock (SS) = 40 units
What are the average inventory level and inventory turn for the item? (7 marks)

QUESTION FOUR (20 MARKS)

- a) Outline the objectives of an effective inventory management. (4 marks)
- b) A manufacturing company has an expected usage of 50,000 units of certain product during the next year. The cost of processing an order is Shs20 and the carrying cost per unit is Shs 0.50 for one year. Lead-time on an order is five days and the company will keep a re-service supply of two days usage.
Required: Calculate
- (i) The economic order quantity (4 marks)
- (ii) The re-order point (Assume 250 – day year). (4 marks)
- c) Problems Associated with EOQ Based System (8 marks)

QUESTION FIVE (20 MARKS)

- a) Explain the general classification of inventory types. (8 marks)
- b) The maintenance department of a large hospital uses 816 cases of liquid cleanser annually. Ordering costs are Shs 12, carrying costs are Shs 4 per case a year and the new price schedule are as per the table below.

Range	Price
Less than 50	Shs 20
50 - 79	Shs 18
80 - 99	Shs 17
100 or more	Shs 16

Required: Determine the Optimal order quantity and the total cost. (12 marks)