



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT SCIENCE

UNIVERSITY EXAMINATION FOR:

BACHELOR OF COMMERCE (PROCUREMENT AND LOGISTICS OPTIONS)

BPC 4302: SUPPLY CHAIN MANAGEMENT

END OF SEMESTER EXAMINATION

ORDINARY EXAMINATIONS

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: DECEMBER 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of FIVE questions. Attempt Question ONE and any other TWO Questions

Do not write on the question paper.

Question ONE

- a) A particular item has a demand of 18,000 items per year. The cost of one procurement (order) is shs. 2000 and holding cost per unit is shs. 48 per year. The replenishment is instantaneous and no shortages are allowed. Assuming a 365 day's year, determine:
- The economic lot size
 - The number of orders per year
 - The time between orders
 - The total cost per year if the cost of one unit is shs. 20. (20 marks)
- b) State and explain any five assumptions of EOQ inventory model (10 marks)

Question TWO

- a) Transportation moves product between different stages in a supply chain. Like the other supply chain drivers, transportation has a large impact on efficiency and responsiveness. Clearly explain how the different transportation decisions can be used to achieve both efficiency and responsiveness (10 marks)
- b) In making sourcing decisions, the buyer has to decide on whether to purchase from a single supplier or from multi suppliers. With examples, explain the benefits of effective sourcing decisions (10 marks)

Question THREE

- a) The following data relates to the quantities demanded of a certain product at Minimax Limited for the months of July to November, 2015. Using the weighted average method, calculate the demand to be expected in the month of December 2015, with the weights; 0.4, 0.275, 0.175, 0.10 and 0.05 (5 marks)

Period	Demand Quantities
July 2015	10
August 2015	25
September 2015	30
October 2015	35
November 2015	50

- b) Explain the advantages of using the exponential smoothing method in demand forecasting (5 marks)
- c) Explain the meaning of postponement as used in inventory management and clearly discuss its impact on profits and inventories (10 marks)

Question FOUR

- a) When comparing suppliers, many firms make a fundamental mistake of focussing only on the quoted price. With examples, explain the factors that affect the total cost of using a supplier other than the quoted price (8 marks)
- b) Discuss the three supply chain macro processes in a firm, clearly highlighting the main activities for each macro process (12 marks)

Question FIVE

- a) Clearly explain the meaning of supply chain and supply chain management and discuss the main objectives of supply chain management. (10 marks)
- b) What is demand forecasting as used in supply chain management? Explain the main characteristics of demand forecasts (10 marks)