



KIBABII UNIVERSITY
SCHOOL OF BUSINESS & ECONOMICS
DEPARTMENT OF BUSINESS ADMINISTRATION
UNIVERSITY EXAMINATION FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION
2ND YEAR 1ST SEMESTER 2019/2020 ACADEMIC YEAR

SPECIAL/SUPPLEMENTARY EXAMINATION

CODE: MBA 813
COURSE: TECHNOLOGY AND OPERATIONS MANAGEMENT
DATE: 29/01/2020
TIME: 11.00AM – 1.00PM

INSTRUCTIONS

1. Answer Question **ONE**(Compulsory) 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
 4. Credit is given for legibility, clarity and use of relevant examples
 5. Question **ONE** is 30 **marks** while Questions **2-5** carry **15 marks** each
 6. Clearly write your **Registration Number** on each answer sheet used
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QUESTIONS : SECTION A

QUESTION ONE

A company has an annual demand for material 'P' of 25000 tons per annum. The cost price per ton is RWF 2000 and stock holding is 25% per annum of the stock value. Delivery cost per batch is RWF 2400.

- (a) Using calculus, the formula for EOQ is derived as:

$$EOQ = \sqrt{2DO/H}$$

Define the following parameters;

- i. EOQ
- ii. D
- iii. P
- iv. H
- v. O

(10mks)

- (b) Calculate the Economic Order Quantity

(10mks)

- (c) According to CIPS (2012), the question of managing and controlling inventories or stocks arise only when the company holds inventories. Explain five reasons why an inventory manager would hold inventory

(10mks)

QUESTIONS : SECTION B

QUESTION TWO

The General Manager of Nakumatt Holding has asked you to put up an inventory forecasting policy. He seems not to understand the various inventory demand forecasting techniques.

Discuss the following in light of the General Manager's request

- a) Delphi Approach

(5mks)

- b) Expert Opinion

(5mks)

- c) Consumer Analysis

(5mks)

QUESTION THREE

- a) Explain Five reasons why an operations manager would need to be familiar with supply chain management

(5mks)

- b) Briefly explain Five benefits of practicing supply chain management in a manufacturing organization (10mks)

QUESTION FOUR

The Storage System must always justify itself in terms of investment and operating expense, by providing an adequate level of performance. Discuss Five Storage System Performance Indicators

(15mks)

QUESTION FIVE

Discuss any five basic tools of quality control used in manufacturing companies according to Ishikawa (15 Marks).