



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ENTREPRENEURSHIP AND MANAGEMENT
SCIENCES

SECOND YEAR FIRST SEMESTER EXAMINATION FOR DIPLOMA IN SUPPLY
CHAIN MANAGEMENT

BBA 037: OPERATIONS MANAGEMENT

DATE: 30/5/2017

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Answer Question One and Any Other Two Questions

QUESTION ONE (COMPULSORY)

- a) Define operations Management. (2 marks)
- b) Identify and explain five P_s of Operations Management. (10 marks)
- c) Outline five factors to be considered during product/service design. (10 marks)
- d) Identify and explain four features of a well designed and effective operating system. (8 marks)

QUESTION TWO

- a) “Better decisions are as a result of forecasting”. Explain by giving five reasons that support this statement. (8 marks)
- b) The following data relates to quarterly sales revenue of a company in thousands shillings.

Year/Quarter	2008	2009	2010
1	40	52	54
2	45	57	57
3	50	56	62
4	49	53	65

- i. Using Ordinary Least Squares methods determine the trend line for use in sales forecasting. (8 marks)
- ii. Forecast the sales revenue for the first and second quarters of 2011. (2 marks)

QUESTION THREE

ABC Company Ltd is seeking to locate its new plant in some parts of Western Kenya. R&D Division of the company availed the following data.

Location	A	B	C	D
Land (Millions Ksh.)	5.0	4.8	4.0	4.2
Construction (Millions Ksh.)	4.5	3.5	3.8	3.5
Electricity installation (Millions Ksh.)	1.2	.89	.707	.699
Materials (per unit in Kshs.)	5.00	4.00	4.50	3.50
Transport (per unit in Kshs.)	2.00	3.00	4.0	6.00
Labour (per unit in Kshs.)	10.00	11.50	12.00	9.00

The following information is also available:

- i. The product will sold at a uniform price of Ksh.100 all over the country per unit
- ii. The planned plant capacity is 1 million units per year and likely to operate at the following capacities.

A: 80%
B: 75%
C: 70%
D: 65%

On the basis of total revenue, total fixed, total costs variable cost and operating capacity. Determine the most suitable location among these four. (20 marks)

QUESTION FOUR

- a) Highlight the importance of a good product/service design. (10 marks)
- b) Explain five effects of poor product/service design. (10 marks)

QUESTION FIVE

- a) Identify and explain five features of a service. (10 marks)
- b) Within operations functions, management decisions fall under three categories. Identify and explain the categories by giving two examples of decisions in each category. (10 marks)