



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BUSINESS & ECONOMICS
UNIVERSITY EXAMINATION FOR BACHELOR OF BACHELOR OF BUSINESS
ADMINISTRATION (With IT) 4TH YEAR SEMESTER I

MAIN Campus

COURSE CODE: ABA 441

COURSE TITLE: OPERATIONS MANAGEMENT

VENUE:

STREAM:

DATE:

EXAM SESSION:

TIME: 2 HOURS

INSTRUCTIONS:

- 1. Answer Question ONE (COMPULSORY) and ANY other 2 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 (30marks)

- a) Highlight Six current trends being observed in the productions and operations management **(12marks)**
- b) Explain Five production sub-functions that can be found in a manufacturing company **(5marks)**
- c) Highlight Four major considerations an operations manager should go for in a process selection **(4marks)**
- d) A project consist of the following activities, with the duration in days, of each activity given in the brackets:
Activities A (14), B (13) and C (15) can be started at the beginning of the project
D (12) may be started when A is over
F (10) and G (12) may be started as soon as B is over
H (7) and M (14) may be started as soon as G is over
J (10) may commence only when both D and F are over
K (9) may commence only when both C and H are completed
L (8) may begin only when both F and G are completed
J, K, L, and M, are the end activities of the project
Required:
Construct the precedence table and hence draw the network **(9marks)**

Question Two (20marks)

- a)
 - i) Explain the concept ‘Strategy’ as used in operations management **(2marks)**
 - ii) Describe the three types of manufacturing Strategy **(6marks)**
- b) The annual demand for an item is known to be 3, 000units which are uniformly distributed over the year. The unit cost of the item is Ksh300 and the holding cost is 10% of the value. The cost per order is Ksh450. Determine:
 - i) The EOQ
 - ii) The change in EOQ when the ordering cost change to Ksh600
 - iii) The total cost of holding stock in (i) and (ii) above **(12marks)**

Question Three (20marks)

- a) Describe the Four types of production systems **(8marks)**
- b) Discuss Six determinants of effective capacity planning process **(12marks)**

Question Four (20marks)

- a) Potential locations A, B, and C have the cost structures as shown below for producing a product expected to sell for Kshs3250 per unit.

Site	Fixed Cost / Year	Variable Cost / unit
A	6,500,000	1,200
B	7,500,000	560

C	5,500,000	4,250
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- i) Find the most economical location for an expected volume of 2750 units per year
- ii) Determine the different ranges of production volume over which the best location to be selected

(12marks)

b) Explain four rules concerning work place layout and material handling

(8marks)

Question Five (20marks)

a)

- i) Explain the difference between MRP and MRP II

(4marks)

- ii) Explain the Four basic inputs to the MRP system

(8marks)

- b) Highlight any Four benefits of ISO 9000 Series in a product/service operations

(8marks)