



**3RD YEAR 1ST SEMESTER EXAMINATION FOR THE DEGREE OF THE BACHELORS
OF BUSINESS ADMINISTRATION**

SCHOOL OF BUSINESS AND ECONOMICS (MAIN CAMPUS)

COURSE CODE: ABA 441

COURSE TITLE: OPERATIONS MANAGEMENT.

DATE:..... TIME :.....

DURATION: TWO HOURS

INSTRUCTIONS

This paper contains FIVE (5) questions.

Answer question one (1) and any other TWO questions.

Write all the answers in the booklet provided.

QUESTION ONE

- a) i) Explain what is meant by the design of facility in operations management
ii) Outline FIVE purposes for the need for facility design in an organization
iii) Outline with typical examples the different between process layout and product

Layout strategy. (9marks)

b) Explain how the following factor affects the job design structure of an organization.

- i) Labor specialization
ii) Ergonomics
iii) Environment

(9 marks)

c) i) Describe six problems are associated with the plant location.

(6 marks).

ii) Describe the THREE methods used for locating a plant facility

(6 marks).

QUESTION TWO

- a) Define plant layout and outline any SIX characteristics of plant lay out (8 marks).
- b) Outline the advantages and disadvantages of the following types of layouts
 - i) Combination layout.
 - ii) Product lay out
 - iii) Fixed position layout. (6 marks).
- c) Describe six problems are associated with the plant location. (6 marks).

QUESTION THREE

- a) In manufacturing outline the core service requirement that customers needs on a product to satisfy their quality demand. (8 marks).
- b) Explain the THREE types of Manufacturing and production systems: (6 marks).
- c) Explain SIX types of service classification (6 marks).

QUESTION FOUR

- a) Explain FOUR specific strategic issues regarding capacity planning (4 marks).
- b) Outline the steps involved in capacity planning (4 marks)
- c) A company intends to buy a machine having a capacity to produce 170,000 good parts per anum. The machine constitutes a part of the product line. The system efficiency is 85%.

Required

- i) Find the system capacity
- ii) If the time required to produce a part is 100 seconds and the machine works for 2000 hours per year. If the utilization of the machine is 60% and the efficiency of the machine is 90% compute the output of the machine (12 marks)

QUESTION FIVE

- a) i) Outline the basic concept of quality management as a tool for guiding the operations of an organization in a competitive environment.

ii) What are the FIVE quality dimensions to be observed when managing the quality process in an organization (10marks).
- b) Explain the structure of MRP as production management strategy.
ii) Outline master production as an element on MRP (10 marks)