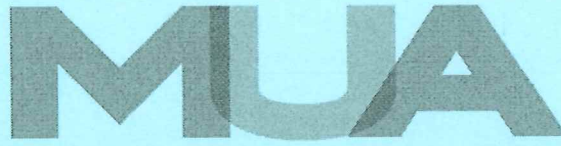


The
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UNDERGRADUATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DEGREE OF BACHELOR OF MANAGEMENT AND LEADERSHIP

PSM 401: PRODUCTION PLANNING AND CONTROL

DATE: 19TH DECEMBER 2024

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

DESIGN OF PRODUCTION PLANNING AND CONTROL SYSTEM

The manufacturing activity of a plant is said to be "in control" when the actual performance is within the objectives of the planned performance. But if jobs are not being started and completed on schedule, great concern about the meeting of commitments would start to trouble management as poor production planning persist. Optimum operation of the plant is attained only if the original plan has been carefully prepared to utilize the manufacturing facilities fully and effectively. Challenges in job scheduling such as when an operation is to be performed, or when work is to be completed, may greatly affect the flexibility in production operations, full utilization of men and machines as well as the coordination operational coordination. It is against this background that design and implementation of a computerized system was muted to identify losses and measure the effectiveness of an improved production planning and control at the case study organization.

In a manufacturing plant production is the driving force to which other processes react. These include inventory, staffing, customer orders and some other functions which exist because of the need of production. When an organization is not able to meet its objectives, such as fulfilling its orders in the right quantizes at the right amount due to the production planning, a red flag is raised and need to improve production planning for the company is put in place to address budget performance and customer satisfaction, in turn will intern improve the good will of a company. Therefore, there was a need to develop a system or program such as a production planning and control that helps to predict and plan production so as to avoid the problems mentioned above for in an organization.

Required:

- a) In reference to the case study, the manufacturing activity of a plant is said to be "in control" when the actual performance is within the objectives of the planned performance. Describe the objectives of production. (10 Marks)

- b) Explain the classification of production operations. (5 Marks)
- c) With reference to the case study, it is against this background that design and implementation of a computerized system was muted to identify losses. Describe the types of production designs/layouts in Organizations (10 Marks)

QUESTION TWO

- a) Explain the reasons against holding inventories in organization. (5 Marks)
- b) Discuss the purpose of new product development. (10 Marks)

QUESTION THREE

- a) Positioning the production system in manufacturing generally means selecting the type of product design, type of production processing system. Describe the activities involved in production planning. (10 Marks)
- b) Manufacturing relies upon process technology; explain five types of process technology (5 Marks)

QUESTION FOUR

- a) Forecasting is the process of predicting the future projections. Describe five methods of forecasting (10 Marks)
- b) MRP is a production planning and inventory control system used to manage manufacturing processes. Explain the objectives of MRP in production operations. (5 Marks)

QUESTION FIVE

- a) Explain the challenges of production planning and control. (10 Marks)
- b) Describe five techniques of inventory management in production operations (5 Marks)

QUESTION SIX

- a) Discuss five objectives of product and service design (10 Marks)
- b) Material handling is a technique employed to move, transport, store and distribute materials. Explain five benefits of material handling (5 Marks)