



The Chartered
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CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT

(CILT) EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

PROFFESIONAL DIPLOMA IN LOGISTICS AND TRANSPORT

PD 08: PRODUCTION PLANNING

DATE: 16TH 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:

SURE MANUFACTURING

Starting a business is a difficult task due to the huge investments required and it is more difficult considering the many government regulations which include environmental impact assessment requirements, all requiring big time effort and patience. However, today people are more determined to take risks and embark on a journey of starting businesses despite all the challenges. There are varied options. There are a lot of opportunities. Business risks are just playthings these days. There are turnkey projects that help the entrepreneur to set up business.

A group of entrepreneurs came up together and decided to start a manufacturing company and they registered a company by the name SURE Manufacturing. The company manufactures various products for domestic use using the experience of the group's vast knowledge of its partners. SURE, manufacturing has transformed itself into one of the best manufacturing firms. Usage of quality products has contributed to the excellence of the end products churned out. Challenges in production control have been characterized by short time delivery time and products, which are developed according to individual customer demands. Consequently, production life cycles are shortened constantly to live up to the market demands and to stand up to the international competition. Concurrently, decreasing lot sizes of single product variants go hand in hand with an increasing product variety. Additionally, volatile lot sizes increase the challenges for production planning and control in such a dynamic environment. The goal of production planning control is to cope with these dynamics and to master these complex processes.

Typically, a major issue is the strong deviation between planning results and the actual outcome of the production system. This leads to a general dissatisfaction in afflicted enterprises and is accompanied by poor achievements of logistics target. Therefore, it is paramount to include the complexity of the order structures and of the material flow in the production planning and control to allow real-time

adjustments. The production process and their planning have to be improved continuously to react to changed circumstances in a dynamic environment.

Required:

- a) Demand forecasting is the most important element in production planning, explain the importance of demand forecasting to Sure Manufacturing management and staff. (10 marks)
- b) Explain to Sure Manufacturing what MRP improvements provide in production planning and control (10 marks)
- c) What are the basic concepts of production planning? (5 marks)

QUESTION TWO

- a) Planning covers all those activities required for the organization's or company's desired objectives to be met. Explain any five activities included in such plans. (10 marks)
- b) For the MRP to provide accurate program materials requirement it needs some inputs identify and explain any three such inputs. (5 marks)

QUESTION THREE

- a) What challenges do production planners encounter as a result of a continually changing manufacturing environment? (10 marks)
- a) Examine five performance objectives that can be used in measuring performance of production planning. (5 marks)

QUESTION FOUR

- a) Discuss any five elements that need to be considered when designing and developing a production plan (10 marks)

- b) Demand management is the combination of the management of sales forecast and customer orders, and it can include customer interfaces, explain any five such customer interfaces. (5 marks)

QUESTION FIVE

- a) Organizations always measure customer's service performance. Identify and explain five such areas customer service performance measures include (10 marks)
- b) Define waste and explain four types of waste identified by a Toyota engineer Taiicho Ohno (5 marks)

QUESTION SIX

- a) Master scheduling is a planning tool that determines a time horizon in weeks or months indicating what end items need to be completed. Identify and explain with examples any five end items (10 marks)
- b) Define Bench marking and explain the four types of bench marking (5 marks)