



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF LAW, BUSINESS INTELLIGENCE AND ECONOMICS

DEPARTMENT OF ECONOMICS, MARKETING AND ENTREPRENEURSHIP

EXAMINATION PAPER

COURSE CODE : CPS412
COURSE TITLE : Material Planning and Control management 1
SPECIAL REQUIREMENTS : NO SPECIAL REQUIREMENTS
DURATION : 3 Hours
LEVEL : 4:1
DATE : 12. OCT, 2023

INSTRUCTIONS TO CANDIDATES:

1. No cell phones are allowed in the examination venue.
2. **QUESTION ONE IS COMPULSORY**
3. Answer **QUESTION ONE AND ANY THREE (3)** questions.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets []
6. Use of practical examples where necessary is encouraged

CASE STUDY

Many organizations, large and small, have legacy systems in place when they start their digital transformation journey. That was the case for a supplier of forklift trucks, warehouse equipment and automation technology. The supplier was looking for a way to optimize sequence planning and production control across its six European plants, taking into account production orders with varied characteristics, four-week lead times and restrictions regarding capacities, deadlines, and workload. The solution was an agile, automated planning and sequencing system connected to their existing SAP system. The sequencing solution can access the operations lists for each production order as well as all operations carried out to manufacture a product. For each operation, the system displays which production order is planned at each work center and the standard values used to determine the dates or the workload. Production planners can visualize a real-time view of the best possible sequence, taking into consideration all assembly and procurement restrictions. The agile planning and sequencing system allow the supplier to manage complex processes in a standardized way, reliably meeting production targets. Planners appreciate the interactive customization options and flexibility of their new digital tools and report tangible savings of time and resources.

QUESTION ONE

- a. From the case study above, identify and explain any five ways implemented to optimize sequence planning and production control across six European plants for a supplier of forklift trucks. **[15 Marks]**
- b. Critically advice a supplier of forklift trucks five ways the supplier can manage processes and how they can improve Material Planning and Production Control processes. **[10 Marks]**

QUESTION TWO

Explain the main factors that affect production and control for a manufacturing company of your choice. **[25 Marks]**

QUESTION THREE

There are many reasons why organisations keep or maintain inventory. Examine five reasons why inventory is being kept. **[25 Marks]**

QUESTION FOUR

Discuss the five main production processes used for the manufacturing of goods by different manufacturing companies. **[25 Marks]**

QUESTION FIVE

“Forecasting is now the backbone of material planning and production control towards embracing industry 4.0.” Assess this notion, outlining five importance of forecasting. **[25 Marks]**

CPS412
Material Planning and Control
NO SPECIAL REQUIREMENTS
3 Hours
4.1
DATE

INSTRUCTIONS TO CANDIDATES

1. Do not place any marks in the unshaded areas.
2. **QUESTION ONE IS COMPULSORY**
3. **ANSWER QUESTION ONE AND ANY THREE (3) OF THE OTHERS.**
4. Write each question on a separate sheet of paper.
5. The number of marks for each question or part of a question is shown in brackets.

END

12/2 