



MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF ENGINEERING, SCIENCE AND TECHNOLOGY

CHEMICAL AND PROCESSING ENGINEERING DEPARTMENT

INDUSTRIAL ORGANISATION AND MANAGEMENT

CODE: HCHE 522

SESSIONAL EXAMINATIONS

APRIL 2023

DURATION: 3 HOURS

EXAMINER: MISS L. NYATHI

INSTRUCTIONS

- Answer any **4 (four)** questions
- Start a new question on a fresh page
- Each question carries 25 marks. Total marks:
100

QUESTION 1

- a) What is the role of certification by standards organizations such as ISO in ensuring quality outputs and ultimately, good organizational performance? Make reference to both ISO 9000 and 14000 series. [10]
- b) Compare and contrast any 3 facility location methods with an emphasis on their applications. [15]

QUESTION 2

- a) Explain how the complexity theory can be applicable to Chemical Process Industries in a recession period. [10]
- b) Discuss various approaches to maintenance management, their suitability to contemporary CPI cases, advantages and disadvantages. [15]

QUESTION 3

- a) What layout features are you likely to find at a mining site that beneficiates and processes an ore to a final, purified mineral. [9]
- b) Control is essential to ensure that you meet the project's objectives in a timely fashion. Explain how you will implement this management function during the period of project execution. [10]
- c) Compare and contrast open and closed systems with reference to their applications in modern day organizations. [6]

QUESTION 4

- a) Discuss any **four (4)** quality control tools that you can use in a cement production facility. [12]
- b) You have opened a large steel scrap recycling company that uses an electrical arc furnace and produces steel ingots and bars. Explain how you would define quality in this case and the costs of quality you may have to incur as a company. [13]

QUESTION 5

- a) With the aid of a house of quality diagram, explain how you would apply Quality Function Deployment to a brewing company. [10]
- b) Explain how wrong staffing procedures can impact the Total Quality Management (TQM) philosophy of a company. [10]
- c) What are some of the planning tools and techniques that managers use? [5]

END OF EXAMINATION