



MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF ENGINEERING

DEPARTMENT: CHEMICAL AND PROCESSING ENGINEERING

MODULE: INDUSTRIAL ORGANISATION AND MANAGEMENT

CODE: HCHE522

SESSIONAL EXAMINATIONS

DECEMBER 2022

DURATION: 3 HOURS

EXAMINER: MISS L. NYATHI

INSTRUCTIONS

1. Answer any **four** questions
2. Start a new question on a fresh page
3. Total marks 100

QUESTION 1

- a) Compare and contrast any **three** facility location methods with an emphasis on their applications. [15]
- b) State and explain the costs of quality that a dairy juice manufacturing company could incur. [10]

QUESTION 2

- a) Describe any **three** types of plant layout. [15]
- b) Explain how the complexity theory is applicable to Chemical Process Industries in a recession period. [10]

QUESTION 3

- a) As the head of a phased project to launch a pharmaceutical product, describe the types of plans, planning tools and techniques that you will employ to ensure that the product is market ready within a short period. [15]
- 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]

QUESTION 4

- a) Discuss any **four** quality control tools that can be used in cement production facility. [12]
- b) Give a detailed definition of *quality* in the case of a process engineering consultancy company. [8]
- c) Explain, with examples, the importance of statistical tools in determining quality. [5]

QUESTION 5

- a) State the planning tools and techniques that managers use. **[5]**
- b) With the aid of a house of quality diagram, explain how you would apply Quality Function Deployment to a brewing company. **[10]**
- c) Compare and contrast open and closed systems with reference to their applications in modern day organisations. **[10]**

END OF EXAMINATION