



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER EXAMINATIONS**

**FOR THE DEGREE
OF
MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING AND
MANAGEMENT**

COURSE CODE: IEM 831

COURSE TITLE: APPLICATION OF COMPUTERS TO MANUFACTURING

DATE: 27/04/2022 TIME: 08:00 - 11:00 AM

INSTRUCTIONS TO CANDIDATES

Answer Any THREE (3) questions

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over. ►

QUESTION ONE

- a. Briefly explain the conventional process of the product cycle in the conventional manufacturing environment. [10 Marks]
- b. What are the design related tasks performed by modern computer? Explain with block diagram [10 Marks]

QUESTION TWO

- a. Explain in detail the different types of database requirements in CIM. Discuss the integration of CAD database and CMM operation. [10 Marks]
- b. Describe hardware configuration of CIM with the help of a sketch. [10 Marks]

QUESTION THREE

- a. Discuss the objectives of CAQC. Explain the different computer aided inspection methods [10 Marks]
- b. Explain the application and advantages of integration of CAQC with CAD/CAM systems [10 Marks]

QUESTION FOUR

- a. Discuss the possible computer applications in Manufacturing Planning activities [10 Marks] b.
Explain CIM integration of all activities of industry. [10 Marks]