



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR SEMESTER 11

FOR THE DIPLOMA

IN

INFORMATION TECHNOLOGY

COURSE CODE: DIT 074

COURSE TITLE: SOFTWARE ENGINEERING

DATE: 26/04/2022

TIME: 3:00 – 4:30PM

INSTRUCTIONS TO CANDIDATES

Answer Questions ONE and ANY OTHER TWO IN SECTION B.

TIME: 1 HOUR 30 MINUTES

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over. ▲

Question one (24 marks)

- a) Differentiate between the following terms as used in software engineering (4mks)
 - i. Software engineering and computer science
 - ii. Black box and white box testing
- b) What is CASE? (1mk)
- c) Describe the CASE systems in detailed (4mks)
- d) What is the difference between functional and non-functional requirements as used in software engineering (4mks)
- e) Mary is developing a school management system software, state three functional and two non-functional requirements Mary will consider while designing her software. (5mks)
- f) State and explain two types of software products. (4mks)
- g) State two reasons why testing is preferred to software inspection as a technique in software verification and validation. (2mks)

Question two (18marks)

- a) Explain the different phases involved in waterfall life cycle. (12mks)
- b) Outline the advantages and disadvantages of the waterfall model. (6mks)

Question three (18marks)

- a) Discuss the project management activities. (10mks)
- b) User acceptance majorly depends upon how user can use the software. Examine the qualities of a good user interface. (8mks)

Question four (18marks)

- c) Requirements engineering process refers to the process of establishing what services are required and the constraints on the system's operation and development. Explain the activities involved in Requirements engineering process (8mks)
- d) What is software testing? describe the common stages of software testing (10mks)

Question five (18marks)

- a) State and explain any four types of maintenance done in software engineering. (8mks)
- b) State three factors affecting maintenance cost of a software. (3mks)
- c) State three factors affecting software pricing. (3mks)
- d) For an effective management accurate estimation of various measures is a must. With correct estimation managers can manage and control the project more efficiently and effectively. State and explain any four-project estimation that should be considered. (4mks)