



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

(MMUST)

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**FOR THE DIPLOMA
IN
INFORMATION TECHNOLOGY**

COURSE CODE: DIT 092

COURSE TITLE: GRAPHICS DESIGN

DATE: 22/04/2022 TIME: 8:00 – 10:00 AM

INSTRUCTIONS TO CANDIDATES

Answer Questions ONE and ANY OTHER TWO.

TIME: 2 HOURS

MMUST observes ZERO tolerance to examination cheating

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

QUESTION ONE (24MKS)

- a. Define the term computer graphics [2mks]
- b. Differentiate between computer aided design and computer graphics [4mks]
- c.
 - I. State why the technology of CRT is considered important in Computer graphics [2mks]
 - II. Explain briefly the operation of the CRT [4mks]
- d. Elaborate three areas where computer graphics is heavily applied [6mks]
- e. As an ICT personnel in a graphics company, explain three specifications of computers your company should consider before using graphic software [6mks]

QUESTION TWO (18 MKS)

- a.
 - i. Define the term animation [3mks]
 - ii. Explain why computer animations considered part of computer graphics [4mks]
- b. Using a clear diagram, explain how the Rasta scan is implemented in computer graphics [10mks]

QUESTION THREE (18 MKS)

- a. Explain 3 areas where computer fractals are applied in computer graphics [6mks]
- b. Define the term computer algorithm [2mks]
- c. Using relevant illustrations, illustrate how DDA algorithm is used to generate lines [8mks]

QUESTION FOUR (18MKS)

- a. Define the following terms as used in computer animations
 - i. Traditional Animation [2mks]
 - ii. Keyframing [2mks]
 - iii. Procedural animation [2mks]
 - iv. Behavioral animation [2mks]

- b. Using a clear diagram, explain how the Random scan is implemented in computer graphics [10mks]

QUESTION FIVE (18MKS)

- a. Define the term fractals as used in computer graphics [2mks]
- b. Discuss the generation of fractals using geometric fractals [6mks]
- c. Bresenham algorithm is used in line generation in graphic designs. Using relevant diagrams, explain how lines are generated using diagrams [10mks]