



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF COMMUNICATION STUDIES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN GRAPHIC DESIGN

HGD 2107: COMPUTER AIDED DESIGN

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2024

TIME: 2 hours

DATE: AUGUST 2024

PAPER ONE

Instruction to Candidates

This paper consists of FIVE questions. Attempt question ONE (Compulsory) and any other TWO questions.

1. (Compulsory)

a) Define the following terms as used in Computer-Aided Design (CAD):

I. CAD (2 marks)

II. Workstation (2 marks)

III. Operating System (2 marks)

IV. Algorithm (2 marks)

V. Database Management (2 marks)

- b) Explain the evolution of computers and their impact on the field of Graphic Design. (10 marks)
- c) Discuss the role and importance of high-level languages in computer programming. Provide examples of two high-level languages commonly used in graphic design. (10 marks)
2. a) Describe the basic CAD commands and their functions. Provide examples of at least three CAD commands and their applications in creating 2D drawings. (10 marks)
- b) Explain the process of operating a CAD workstation, including setting up the hardware and software required. (10 marks)
3. a) Discuss the importance of organizing and managing AutoCAD files for 2D drawings. Explain the steps involved in creating and managing layers in AutoCAD. (10 marks)
- b) Describe the process of data processing in computers, including data collection, synthesis, entry, files, and processing. How is this process relevant to CAD applications? (10 marks)
4. a) Explain the fundamental components of a computer and their functions. Discuss how these components contribute to the overall performance of a CAD workstation. (10 marks)
- b) Describe the introduction and functions of Adobe Photoshop and Illustrator in graphic design. How do these software tools integrate with CAD applications? (10 marks)
5. a) Discuss the importance of database management systems in information systems. Provide examples of how databases are used in CAD and graphic design projects. (10 marks)
- b) Explain the significance of programming structure development and specifications in designing application software. How does this knowledge benefit a graphic designer using CAD software? (10 marks)