

**GARISSA UNIVERSITY**

**SCHOOL OF PURE AND APPLIED SCIENCES**

**END OF SEMESTER EXAMINAION FOR DIPLOMA OF INFORMATION TEHNOLOGY**

**UNIT CODE: DIT 026 TITLE: INFORMATION SYSTEM ENGINEERING**

**DATE: TIME: 2 HOURS**

**INSTRUCTION TO CANDIDATES**

1. The paper consists of two sections A and B.
2. Answer ALL the questions in section A (compulsory).
3. Answer any two Questions from section B.
4. Marks allocated are shown at the end of each question.
5. Write your answers in the answer sheet booklet provided.

**SECTION A :( 30 marks)**

**QUESTION ONE**

1. Define the following terms.
2. Assemblers (2 mark)
3. Compilers **(2 mark)**
4. Linkers (**2 mark)**
5. **Loaders**  (**2 mark)**
6. **Information System engineering** (**2 mark)**
7. Discuss the Main Components of Information systems (5 marks)
8. Explain FIVE function of computer hardware (5 marks)
9. Explain the major functions of information systems (10marks)

**SECTION B: ( 40 marks)**

**QUESTION TWO**

1. Describe the following types of programming languages
2. Machine Language ( 2 marks)
3. Assembly Language ( 2 marks)
4. High Level Language ( 2 marks)
5. Fourth Generation Language ( 2 marks)
6. Explain the difference between interpreters and compilers as types of language translators ( 6 marks)
7. Explain THREE characteristics of a system ( 6 marks)

**QUESTION THREE**

1. Explain the difference between graphical user interface and character user interface operating system ( 4 marks)
2. Briefly describe the following types of Operating System
3. Single program operating system
4. Multi-tasking operating system
5. Single user operating system
6. Multi user operating system ( 8 marks)
7. State and Explain FOUR different types of software ( 8 marks)

**QUESTION FOUR**

1. Outline the Functions of an operating system? (7 marks)
2. State Factors to consider when choosing an operating system (5 marks)
3. State TWO advantages and TWO disadvantages of using Information System (4 marks)
4. Explain the difference between complex system and simple system ( 4 marks)

**QUESTION FIVE**

1. Systems can be characterized along a wide range of characteristics. Explain the difference between;
2. Physical systems Vs Abstract systems ( 4 marks)
3. Open systems Vs Closed systems ( 4 marks)
4. Open loop systems Vs closed loop systems ( 4 marks)
5. Stable/Static systems Vs Dynamic systems ( 4 marks)
6. Adaptive systems Vs non-adaptive systems ( 4 marks)