



GARISSA UNIVERSITY

UNIVERSITY EXAMINATION **2017/2018** ACADEMIC YEAR **TWO**
THIRD SEMESTER EXAMINATION

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCE
FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

COURSE CODE: DIT 026

COURSE TITLE: INFORMATION SYTEM ENGINEERING

EXAMINATION DURATION: 2 HOURS

DATE: 06/08/18

TIME: 2.00-4.00 PM

INSTRUCTION TO CANDIDATES

- The examination has **SIX (6)** questions
- Question **ONE (1)** is **COMPULSORY**
- Choose any other **THREE (3)** questions from the remaining **FIVE (5)** questions
- Use sketch diagrams to illustrate your answer whenever necessary
- Do not carry mobile phones or any other written materials in examination room
- Do not write on this paper

This paper consists of **THREE (3)** printed pages

please turn over



QUESTION ONE (COMPULSORY)

- a. Explain the term information system [2 Marks]
- b. An information system is essentially a group of components working together to capture and deliver information to users.
- i. What are these components? [3 Marks]
- c. Define the following terms as used during systems analysis project
- i. Prototyping [2 Marks]
- ii. fact-finding [2 Marks]
- d. What is a system changeover? State any **FOUR** methods of system changeover and explain their application [4 Marks]
- e. The waterfall model applied to system analysis and design project has a number of limitations or preferably, criticisms. Explain any **FOUR** [4 Marks]
- f. Explain the characteristics of the following types of Information System
- i. MIS
- ii. DSS [8 Marks]

QUESTION TWO

- g. Information is required both for strategic decision making and for operational purposes. Explain, with examples, how strategic information differs from operational information. [10 Marks]
- h. Clearly explain the term information systems security and list the main goals of IS security [5 Marks]

QUESTION THREE

- i. Managing I.T. infrastructure poses both opportunities and challenges. Explain the different opportunities of managing I.T. infrastructure. [7 Marks]
- j. Information systems are vulnerable to several threats. Explain the different common threats against contemporary Information systems. [8 Marks]

QUESTION FOUR

- k. It is sometimes claimed that there are Three organizational levels; operational, management and strategic.
- i. For EACH of these organizational levels, give a brief description of its position in the management hierarchy. [5 Marks]
- ii. Explain the Information System and the types of decision made at each level. [10 Marks]



QUESTION FIVE

- l. Evaluate any three major causes of information systems failure. **[3 Marks]**
- m. Identify and describe six ethical principles **[12 Marks]**

QUESTION SIX

- n. Explain the key technological trends that heighten ethical concerns **[5 Marks]**
- o. The system development life cycle, SDLC, is principally a seven stages process. Describe this cycle. **[10 Marks]**

