



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

P.O. Box 62157
00200 Nairobi - KENYA
Telephone: 891601-6
Fax: 254-20-891084
E-mail: academics@cuea.edu

AUGUST – DECEMBER 2018 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER AND LIBRARY SCIENCE

REGULAR PROGRAMME

DIT 013: SYSTEMS ANALYSIS AND DESIGN

Date: DECEMBER 2018

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

- Q1. a) Briefly explain what you understand by the term Information Systems
(2 Marks)
- b) Give a description of the following terms in relation to Systems analysis and design
- i) Stake holders
 - ii) Project management
 - iii) System Analyst
 - iv) System Designers
 - v) Information technology
 - vi) Business Analyst
- (10 Marks)**
- c) Briefly differentiate between the following terms as used in systems analysis and design
- i) Data and Information
 - ii) Information Workers and Knowledge Workers
- (4 Marks)**
- d) Give a brief description of what you understand by the following terms as used in systems analysis and design
- i) project
 - ii) system development process
- (4Marks)**
- e) Briefly Explain the five phases of system analysis **(5 Marks)**
- i) Define systems requirements.

- ii) Differentiate between functional and non functional requirements of a system **(5 Marks)**
- Q2. a) The **Capability Maturity Model (CMM)** is a framework to assess the maturity level of an organization's information system development and management processes and products. It consists of five levels of maturity as measured by a set of guidelines called the key process areas. Briefly describe the five levels of the CMM. **(10 Marks)**
- b) There are Five classes of information. Write short notes on these classes of information systems as used in organizations **(10 Marks)**
- Q3. a) Explain how the success of a project is measured **(5 Marks)**
- b) What are some of the results of incorrect system requirements during system development? **(5 Marks)**
- c) Briefly explain what you understand by data modeling and explain three benefits associated with it **(5 Marks)**
- d) Give a brief Description of five skills required by a systems analyst **(5 Marks)**
- Q4. a) Describe the following terms;
 i) entity
 ii) Attributes
 iii) System builders
 iv) System users
 v) Prototype **(10 Marks)**
- b) Briefly explain what you understand by the term data model and differentiate between Logical and physical data model **(5 Marks)**
- c) Describe five causes of Project failure **(5 Marks)**
- Q5. a) Write short notes about the PIECES solving framework **(5 Marks)**
- b) What is a process? **(2 Marks)**
- c) How does Rapid Application Development Work **(2 Marks)**
- d) What do you understand by the term Accelerated analysis **(2 Marks)**
- e) What is Continous Process Improvement **(2 Marks)**
- f) Identify and explain four fact finding methods **(4 Marks)**
- g) Identify three project management functions **(3 Marks)**