



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS
DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DICT/JAN2019/S-FT

EIT 210 , SYSTEMS ANALYSIS & DESIGN

END OF SEMESTER EXAMINATION

SERIES:AUGUST2019

TIME:2HOURS

DATE:Pick DateJul2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

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

Do not write on the question paper.

QUESTION 1

- a) Differentiate between systems analysis and design. [4 Marks]
- b) Describe who a system analyst is, stating any four of his/her competencies. [6 Marks]
- c) State and explain four categories of Information Systems [8 Marks]
- d) State any two reasons why users may resist a new information system [2marks]

QUESTION 2

- a) Draw an ERD that models the following scenario. A department can have many employees, and employee can only be in one department. Demonstrate the relationships and cardinality between the entities. [8marks]
- b) You have been assigned the task to develop a new information system. Provide an example that demonstrate the use of a Gantt chart as you schedule the activities in the SDLC [10marks]
- c) Explain what a requirement specification document is in system development [2marks]

QUESTION 3

- a) When an invoice is received from a supplier, it is checked against a file of authorized purchases. If the invoice does not match an authorized purchase, then it is returned to the supplier with a querying letter. If the invoice matches an authorized purchase, but is for an incorrect amount, then it is returned to the supplier with a standard form. If the invoice reconciles, a payment authorization is made out. A cheque is then sent to the supplier and the authorization is filed. Draw a DFD to represent the above system. [12 marks]
- b) List and explain any four objectives of input form design [8marks]

QUESTION 4

- a) TUM wants to implement a new system called TUM MIS to replace an old one. Explain any four approaches for system changeovers that can be used. [8 marks]
- b) State any four importance of system documentation [4marks]
- c) Differentiate between the following types of system testing [8marks]
 - i. white box and black box system testing
 - ii. Alpha and beta testing

QUESTION 5

- a) Explain the waterfall approach to system development [8marks]
- b) Discuss any four system maintenance approaches [8marks]
- c) State any 4 Sign that shows a system which is nearing the end of it economic life[4martks]