



**TECHNICAL UNIVERSITY OF MOMBASA**  
**INSTITUTE OF COMPUTING AND INFORMATICS**

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Select department

**UNIVERSITY EXAMINATION FOR:**

BMCS 14S Y2S2

BSSC 14S Y2S2

BSIT/SEP 2015/ Y1S2

BIT 4206: SYSTEM ANALYSIS AND DESIGN

END OF SEMESTER EXAMINATION

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: Pick Date May 2016**

**Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

- a. List and describe the four system changeover methods. Which of the system changeover methods generally is the most expensive? Why? Which of the system changeover methods generally is the riskiest? Why? (10 marks)
- b. Explain the steps in a preliminary investigation stage in systems design? (10 marks)
- c. Describe five types of information systems, and give an example of each. (10 marks)

**Question two [20 marks]**

- a. Explain the common reasons for systems projects? (6 marks)
- b. Define feasibility study? List and briefly discuss four feasibility tests. (8 marks)
- c. Explain the types of relationship sets with a suitable digram. (6 marks)

**Question three [20 marks]**

- a. What is RAD, what are the four RAD phases, explain the activities in each phase? (6 marks)
- b. Where does systems implementation fit in the SDLC, what tasks are performed during systems implementation, and why is quality assurance important at this stage? (5 marks)
- c. Define unit testing, integration testing, and system testing. (9 marks)

**Question four [20 marks]**

- a. Identify and explain the main components of an information system. (8 marks)
- d. What types of documentation does a systems analyst prepare, and what would be included in each type? (8 marks)
- e. List and describe the four classifications of maintenance and testing techniques. (4 marks)

**Question Five [20 marks]**

**Technical University Workshop**

**Situation:** Technical University workshop sells a line of high-quality woodworking tools. When customers place orders on the company's Web site, the system checks to see if the items are in stock, issues a status message to the customer, and generates a shipping order to the warehouse, which fills the order. When the order is shipped, the customer is billed. The system also produces various reports.

1. Draw a diagram 0 DFD for the order system. (20 marks)