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**University Examinations 2015/2016**

FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

**CIT 3154: SYSTEMS ANALYSIS AND DESIGN**

 **DATE: AUGUST 2016 TIME: 2HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30MARKS)**

1. State three quality of good documentation. (3 Marks)
2. Define the following terminologies as used in System Analysis Design:
3. System
4. Feasibility
5. System Analysis
6. Prototype (4 Marks)
7. Safaricom seek to recruit a System Analyst in accordance with the company’s business needs. The Human Resource Assistant at the company is having a problem defining the roles for the holder of this office. As an I.T expert outline for her four roles of a system analyst. (4 Marks)
8. State and explain three types of maintenance in system implementation. (6 Marks)
9. Explain four purposes of documentation. (8 Marks)
10. From the narrative below, draw a decision table. If an ordinary customer order is >50000 then he gets 10% discount. Is his cumulative order is >20000 he gets 15% discount. If he is a special customer and his order is >5000 he gets 8% discount. No other discount is available. (5 Marks)

**QUESTION TWO (20 MARKS)**

1. Explain three reasons why end users need to be involved in system development. (4 Marks)
2. State and explain four types of feasibility study in system analysis. (8 Marks)
3. The purchasing department request for orders from specified suppliers, who in turn send an invoice of the goods indicating the cost of goods. These are analyzed and some are accepted while others rejected. Those that are accepted are given an order to deliver the goods. The goods are delivered to the store department with an accompanying delivery note, which is signed by the store department to indicate that the goods have been received. The signed delivery note is then sent back to the purchasing department to complete the transaction. Draw a level one DFD for the purchasing system narrated above. (8 Marks)

**QUESTION THREE (20 MARKS)**

1. State two advantages of decomposing a system into many subsystems. (2 Marks)
2. State the deliverables in each of the following System Analysis stages:
3. Problem identification
4. Feasibility study
5. Project planning and management
6. Analysis (4 Marks)
7. “I’ve got the idea of the century!” proclaims Kemunto, a new systems analyst with your systems group. Let’s skip all this System Development Life Cycle stages and just prototype everything. Our projects will go a lot more quickly, we’ll save time and money, and all the users will feel as if we’re paying attention to them instead of going away for months on end and not talking to them.
8. Explain three reasons you (as a member of the same team as Kemunto) would discourage her from trying to scrap out the System Development Life Cycle and prototype the entire project. (3 Marks)
9. Kemunto is pretty disappointed with what you have said. To encourage her, use a paragraph to explain the situations you think would lend them to prototyping. (3 Marks)
10. Explain four change-over techniques applicable in an organization. (8 Marks)

**QUESTION FOUR (20 MARKS)**

1. Outline three uses of Gantt chart at project planning. (3 Marks)
2. Explain the following types of system:
3. Deterministic
4. Probabilistic
5. Cybernetic (3 Marks)
6. Explain six reasons why the delivery of the final system components should be accompanied with the necessary documentation. (6 Marks)
7. Testing a system is very important in system development. Explain the purpose of testing a system and describe the testing process that a system would undergo until it is fully operational. (8 Marks)

**QUESTION FIVE (20 MARKS)**

1. Explain five factors that will affect the cost of maintenance. (5 Marks)
2. Contrary to the general belief, people do not resist technological change, but social changes. For Management Information Systems to be accepted, people must see in it the features that support their social change and psychological needs. With these understanding explain four causes of resistant among employees. (7 Marks)
3. An organization has decided to develop a system to facilitate the invoicing of its sales to clients. It expects the invoices to be generated from the purchase orders of customers after the goods have been confirmed to be available. The sales manager considers this system to be crucial for its future success because it deals directly with customers and is anxious to ensure that it works well. Explain four areas of testing for the information system that will be necessary to facilitate a good system. (4 Marks)
4. Explain two limitations of documenting a system. (4 Marks)