

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE**

**OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

**BIT 2112: SYSTEM ANALYSIS AND DESIGN**

**DATE: DECEMBER 2015 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND**

**ANY OTHER TWO QUESTIONS**

**QUESTION ONE (COMPULSORY) (30 MARKS)**

Define the following terms:

1. System Analysis. [2 marks]
2. System Design [2 marks]
3. Feasibility Study [2 marks]
4. User Interface [2 marks]
5. What do the acronyms DFD and ERD stand for? [2 marks]
6. Differentiate between logical and physical model [2 marks]
7. Outline the phases of systems development life cycle. [8 marks]
8. Explain the strategies followed for change-over of the system. [6 marks]
9. Explain the following terms as used in feasibility study: [4 marks]
10. Technical feasibility
11. Operational feasibility
12. Schedule feasibility
13. Economic feasibility

**QUESTION TWO (20 MARKS)**

1. Apart from the waterfall model, name FOUR other system development

methodologies. [4 marks]

1. State THREE strengths of the waterfall system development

methodology. [6 marks]

c) State FIVE weaknesses of the waterfall system development

methodology. [10 marks]

**QUESTION THREE (20 MARKS)**

1. State and explain FIVE reasons why system analysis and design

is important. [10 marks]

1. Your organization needs to hire an assistant system analyst to work

with you in a software project. Management has requested you to

draw up the job description for this assistant. Write a short job

description of what the assistant will be required to do as an

Information Systems Analyst. [8 marks]

1. Describe any TWO fact finding techniques you would use while

working on the above project. [2 marks]

**QUESTION FOUR (20 MARKS)**

1. There are several tools and techniques used for describing the system

design of the system. Name FOUR of these tools and techniques. [4 marks]

1. Due to various responsibilities that a system analyst requires to handle,

he/she has to be multifaceted person with varied skills required at

various stages of the life cycle. In addition to the technical know how

of the information system development. Name and describe skills

a system analyst should have. [6 marks]

1. Describe any THREE types of information systems. [6 marks]
2. What is a Data Flow Diagram used for. [4 marks]

**QUESTION FIVE (20 MARKS)**

1. Define version control and state why it is important. [4 marks]
2. Name and describe FOUR maintenance tasks. [12 marks]
3. What is the importance of maintenance? [4 marks]