

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

## JOMO KENYATTA UNIVERSITY

**OF**

**AGRICULTURE AND TECHNOLOGY**

# University Examinations 2014/2015

**YEAR I SEMESTER II EXAMINATION FOR THE DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY**

**BIT 2112: SYSTEM ANALYSIS AND DESIGN**

**DATE: APRIL 2015 TIME: 2 HOURS**

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

**ANY OTHER TWO QUESTIONS.**

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**QUESTION ONE (30 MARKS)**

(a) Describe the following classes of information system:

i) Decisional Support System (DSS)

ii) Management Information System (MIS)

iii) Expert Systems (ES) (6 marks)

(b) Explain ten ethics for a system analysts. (10 marks)

(c) State five business trends that impact information systems.(10 marks)

(d) State four simple steps in a general system development. (4 marks)

**QUESTION TWO (20 MARKS)**

(a) Distinguish between life cycle and methodology in system

development. (4 marks)

(b) Explain five reasons why methodologies are important

in system development. (10 marks)

(c) Describe “James whetherbe” framework, giving six categories where system development come from. (6 marks)

**QUESTION THREE (20 MARKS)**

(a) Differentiate between prototyping and commercial off the shelf

(COTS) in system development. (8 marks)

(b) Explain three disadvantages of prototyping. (6 marks)

(c) State any three advantages of commercial off the shelf system.(6 marks)

**QUESTION FOUR (20 MARKS)**

(a) Differentiate between a logical model and a physical model.(6 marks)

(b) Give five advantages of model driven approach to system

development. (5 marks)

(c) With the aids of a diagrams, describe the following diagrams:

i) Context diagram

ii) Level on context diagram (9 marks)

**QUESTION FIVE (20 MARKS)**

(a) Using appropriate, diagram, distinguish between:

i) Craws foot nutrition

ii) Chen notation (10 marks)

(b) Describe the following keys as used in entity relationship diagrams:

i) Concatenated key

ii) Candidate key

iii) Primary key

iv) Secondary key (10 marks)