JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY:

Course Tittle: SYSTEM BUILDING

Course Code: IIT 3122

YEAR 1 SEMESTER 2

Mode of Study: SELF SUPPORT PROGRAM

KISUMU LEARNING CENTRE

AUGUST-DECEMBER 2013   TIME: 2 HOURS

INSTRUCTIONS:

1. This paper contains FIVE questions
2. Question one is **Compulsory** and any other two questions
3. Answers questions in the book let provided

QUESTION ONE (30 MARKS)

a) Define project management   [2marks]

b) Highlight   team building process that would   keep a   software development team
   cohesive   [8marks]

c) Explain the following Object oriented design   [6marks]
         i. Object
         ii. Class
         iii. abstraction

d) What is a system?, Explain the components of a system   [6marks]

e) Explain five importance of project schedules in project management   [10marks]

QUESTION TWO (20 MARKS)

a) Explain the following software development techniques   [6marks]
         i. RAD. Rapid application development model
         ii. Prototyping technique
         iii. Water fall model

b) List and explain at least two aspects of feasibility study   [4marks]

c) What are the roles of system analyst   [4marks]

d) Explain any three elicitation techniques in system development life cycle [6marks]

QUESTION THREE (20 MARKS)

a) Data collection is a key principle in system building while collecting the use requirements ,
   explain the data collection techniques used in system building   [8marks]

b) Define the following tools and techniques used for project management
         i. Ghent Chart   [2marks]
         ii. Project Evaluation Review Techniques   [2marks]
         iii. Work bench structure   [2marks]

c) Explain sequence diagram in Unified modeling language by highlight its components
                                                               [6marks]

QUESTION FOUR (20 MARKS)

a) Explain the importance of work breakdown structure in a project management
                                                                  [5marks]

b) Define and explain the roles of the following in system building process;
       i)   Data Flow Diagram (DFD)   [3marks]
       ii)   Object Modeling   [3marks]
       iii)   Unified Modeling Language (UML)   [3marks]
       iv)   Entity-Relationship Diagram (ERD)   [3marks]

QUESTION FIVE (20 MARKS)

a) Identify four key players in system development and software development and high light their roles   [8marks]

b) Discuss the following objected oriented programming concepts   [4marks]
    i. Abstraction
    ii. Inheritance

c) Why it is necessary to give good system documentation in system development
                                                                                          [4marks]

d) Explain two fundamental data types used in SQL (Sequel Query Language)
                                                                                          [4marks]