



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

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AUGUST - DECEMBER 2015 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

ONLINE PROGRAMME

DLIS 115: INTRODUCTION TO ICT

Date: DECEMBER 2015

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and ANY OTHER TWO Questions

- Q1. a) With the aid of diagrams explain Ring and Star topologies. **(4 marks)**
- b) Describe FOUR basic functions of a computer operating system. **(8 marks)**
- c) Discuss THREE health and safety problems associated with regular use of computers and how to avoid them. **(6 marks)**
- d) Convert the following decimal (Base – 10) numbers to Binary (Base – 2)
- i 12
 - ii 23
 - iii 32
- (6 marks)**
- e) Discuss the main steps for system development life cycle. **(6 marks)**
- Q2. a) Discuss TWO major classifications of computers. **(4 marks)**
- b) Discuss FOUR major roles of information and communication technologies (ICT) in today's world. **(8 marks)**
- c) By use of examples, differentiate between a GUL, Menu driven and command line operating system. **(8 marks)**

- Q3. a) Define the term human – computer interaction (HCI) describe THREE design principles for human computer interaction. (HCI) **(8 marks)**
- b) Define the term open system interconnection (OSI) model, with the aid of diagrams explain the OSI reference model 7 layers. **(8 marks)**
- c) By the use of a block diagram, illustrate the main components of a general – purpose computer. **(4 marks)**
- Q4. a) Describe TWO common signs of a computer infected by a virus. **(4 marks)**
- b) Explain why computer security is of critical importance? Discuss how the following basic information security standards can be enforced
- i Confidentiality
 - ii Integrity
 - iii Availability
- (8 marks)**
- c) Differentiate between commercial software and open source software outline THREE advantages and disadvantages of open source software over commercial software. **(8 marks)**

END