



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

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AUGUST – DECEMBER 2016 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

EVENING PROGRAMME

DLIS 115: INTRODUCTION TO ICT

Date: DECEMBER 2016

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

- Q1. a) Define the following terminologies:
i) Hardware
ii) Software
(2 marks)
- b) Differentiate between the following terminologies.
i) RAM and ROM
ii) Primary storage and secondary storage
(4 marks)
- c) Computer software can be categorized into two broad categories. Critically explain the categories giving examples of each.
(4 marks)
- d) Explain in details three major functions of an operating system in a computer based system.
(6 marks)
- e) Define the term computer BUS as used in a computer based system and explain three functions of the buses.
(6 marks)
- f) Explain the following computer security threats.
i) Virus
ii) Worm
iii) Trojan
(6 marks)

- Q2. a) Several input devices are available for use in a computer system. Give the appropriate input devices to perform the following tasks.
- i) Transfer a hard copy document to a computer
 - ii) Transfer audio sound to a computer **(2marks)**
- b) Our society depends upon computer systems and the people who develop and maintain them. What are some of the advantages brought about by computer systems in our modern society? **(4 marks)**
- c) With aid of a diagram explain the major components of the central processing unit of a computer. **(8 marks)**
- d) Describe two advantages of a computer network? **(2 marks)**
- e) List and explain the use of any two hardware components used to build a local network. **(4 marks)**
- Q3. a) Discuss THREE health and safety problems associated with the regular use of computers and how to avoid them. **(6 marks)**
- b) Briefly describe the security concepts of Confidentiality, Authentication, Data Integrity and Availability. **(4 marks)**
- c) Company XYZ has just put up offices in the capital city of Nairobi. They have contracted a firm to setup computerized information system. The company has received a proposal that some of the software will be developed to meet their system requirements and some will be bought off the shelf.
- i) What does the tem “off the shelf mean”. **(2 marks)**
 - ii) Explain TWO disadvantages of developing software for the customer. **(2 marks)**
 - iii) Explain TWO advantages of purchasing software “off the shelf”. **(4 marks)**
- Q4. a) The CocaCola Bottlers Ltd wants to produce a storage technology to store data generated from their branches all over the country. Discuss any TWO advantages of a database enterprise data storage.. **(4 marks)**
- b) Explain the term embedded system and give appropriate examples. **(2 marks)**

- c) Explain THREE computer crimes committed by computer system users. **(6 marks)**
- d) What are some of the factors that you would consider when purchasing software for an organization. **(4 marks)**
- e) Distinguish the following terminologies:
i) LAN and WAN
ii) Server and client computer **(3 marks)**
- Q5. a) Define the term Human-computer interaction (HCI), describe THREE design principles for human-computer interaction (HCI). **(6 marks)**
- b) With the aid of diagrams explain the OSI Reference Model 7 layers. **(7 marks)**
- c) By use of examples differentiate between a GUI, Menu driven and command line operating system. **(6 marks)**

END