



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

MAY – JULY 2018 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER AND LIBRARY SCIENCE

REGULAR PROGRAMME

DIT 002: FUNDAMENTALS OF INFORMATION TECHNOLOGY

Date: JULY 2018	Duration: 2 Hours
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INSTRUCTIONS: Answer Question ONE and any other TWO Questions

- Q1. a) What is a computer? How does a computer work? **(2 Marks)**
- b) State and explain five major characteristics of computers. **(10 Marks)**
- c) In the evolution of computers, explain the computer generations stating the major technology in each generation? **(8 Marks)**
- d) Computers regardless of their sizes perform five major operations and functions. In brief state the five areas to which they operate? **(10 Marks)**
- Q2. a) Discuss Computer memory classification. **(4 Marks)**
- b) What is the meaning of the following terms? **(4 Marks)**
- a) Hardware
 - b) Software
- c) In computer architecture how is the CPU and the memory connected? **(6 Marks)**
- d) Giving at least two examples explain the role of an operating system in a computer system. **(4 Marks)**
- e) How do users interact with the computer? **(2 Marks)**

- Q3. a) Explain the meaning of the following terms as used in computer Programming **(6 Marks)**
a) Writing Program
b) Compiling Program
c) Executing Program
- b) Explain the following computer languages. **(6Marks)**
a) Machine Language
b) Assembler Language
c) High Level Programming Languages
- c) Explain the two major classifications of software. **(4 Marks)**
- d) Explain what is responsible for processing interaction between the user and the operating system. **(4 Marks)**
- Q4. a) What do you call the programs that are used to find possible faults and their causes? **(2 Marks)**
- b) Give two terms would you use to refer to the computer ability to be free from tiredness or boredom? **(2 Marks)**
- c) Describe two possible ways to which computers give out their output. **(4 Marks)**
- d) Which computer component would you describe it as the brain of the computer and why? **(4 Marks)**
- e) Explain the meaning following terms as used in computers. **(8 Marks)**
a) Control unit
b) Optical scanner
c) Gigabit
d) Terminal
- Q5. a) How do compilers differ from translators? **(4 Marks)**
- b) Which component is responsible for mathematical calculations and logical functions in the computer? **(2 Marks)**
- c) Dorothy got to the computer laboratory and started her computer. Unfortunately her computer could not start. As a computer scientist you were prompted to support her. Describe any three things you would do to troubleshoot this problem. **(6 Marks)**

- d) What do you refer to a fault in the computer program that prevents it from working correctly? **(4 Marks)**
- e) State and explain two computer crimes we can commit. **(4 marks)**

END