



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2015/2016**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF  
BACHELOR OF ARTS, BACHELOR OF EDUCATION AND BACHELOR  
OF SCIENCE WITH INFORMATION TECHNOLOGY**

**HOMA-BAY CAMPUS**

**UCI 101: FOUNDATIONS OF INFORMATION TECHNOLOGY**

Date: 10<sup>th</sup> December, 2015

Time: 11.00 - 1.00 pm

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**INSTRUCTIONS:**

- Answer question ONE (Compulsory) and any other TWO questions.
- Question ONE carries 30 marks. Other questions carry 20 marks.



**SECTION A : COMPULSORY QUESTION (30 MARKS)**

- 1(a) Define the following terms
- (i) Information Technology (1mark)
  - (ii) Coding (1mark)
  - (iii) Byte (1mark)
- (a) Briefly define the term Data Processing and write the Five steps involved in Data Processing. (5marks)
- (b) Explain the following terms as used in the memory management of a computer system .
- (i) SRAM (2marks)
  - (ii) High Speed Memory (2marks)
  - (iv) Capacity (2marks)
- (d) Identify and briefly explain the FOUR functions of an Operating System. (8marks)
- (e) Name the personality associated with the following in the development of the Modern computer.
- (i) First Programmer (2marks)
  - (ii) Stored Program Concept (2marks)
- (f) Differentiate between the following.
- (i) Arithmetic processing (2marks)
  - (ii) Logical processing (2marks)

**SECTION B : ATTEMPT ANY TWO QUESTIONS (20 MARKS EACH)**

- 2 (a) The first electronic digital computers were developed between 1940 and 1945. Thereafter computers started being studied in groups called generations. Explain the characteristics of the following generations of computers.
- (i) Second Generation (5marks)
  - (ii) Fifth Generation (5marks)
- (b) (i) State the TWO methods of Data Processing and with examples explain the underlying differences between them. (10marks)
- 3 (a) Discuss the main differences between the User Interfaces of an operating system (10marks)
- (b) Write short notes about the following personalities.
- (i) Charles Babbage
  - (ii) Herman Hollerith (10marks)
- 4 (a) State and explain any FIVE disadvantages of a computer system (10marks)
- (b) What is the full meaning of the abbreviations C. P.U of a computer system. Discuss the characteristics of this device. (10marks)
- 5 (a) Discuss how the programming languages have evolved with time. (10marks)
- (c) Your local school's principal wants to buy a computer package for electronic Databases. Explain to him how the school is bound to benefit by using the package . (10marks)