



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

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

CITY CAMPUS

UCI 101: FOUNDATION OF INFORMATION TECHNOLOGY

Date: 23rd April, 2016

Time: 9.00 - 11.00am

INSTRUCTIONS:

- **Answer ALL Questions in Section A and any other TWO in Section B.**



SECTION A : COMPULSORY QUESTION (30 MARKS)

QUESTION 1

- (a) Define the terms information technology and briefly discuss how telecommunication has contributed in this the development in this field. (4marks)
- (b) Analog computers are commonly used in many fields. Discuss. (6marks)
- (c) State and briefly explain the THREE coding schemes used in data representation. (6marks)
- (d) Briefly explain any THREE characteristics of Mnemonic code. (6marks)
- (e) Convert the following numbers to the bases indicated
- (a) $(145)_{10}$ to base two equivalent (4 marks)
- (b) $(100110011)_2$ to decimal number equivalent (4 marks)

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

QUESTION 2

- (a) Discuss the importance of the study of output devices of computers in your field of study. (10marks)
- (b) Discuss how data is transformed from the time it is keyed into the digital computer to the time information is displayed on the screen. (10marks)

QUESTION 3

- (a) Discuss the importance of a cache memory of a computer system. (10marks)
- (b) State FIVE advantages of Software Suites . (10marks)

QUESTION 4

- (a) Briefly discuss how a hard disk works in a computer system. (10marks)
- (b) Write down the features of the THIRD generation languages that make them useful when developing an Information Systems . (10 marks)

QUESTION 5

- (a) Write short notes on the following
- i) Point-of sale terminal (5 marks)
- ii) Console (5 marks)
- (b) What is an optical scanner? Name any Four types of scanners and briefly explain how they work. (10 marks)