



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
THIRD YEAR SECOND SEMESTER**

**SCHOOL OF TOURISM AND NATURAL
RESOURCES
BACHELOR OF SCIENCE IN FORESTRY AND
ECOSYSTEM MANAGEMENT**

**COURSE CODE: COM 300
COURSE TITLE: INTRODUCTION TO COMPUTER
SCIENCE**

DATE: 19TH APRIL 2018

TIME: 0830 – 1030HRS

INSTRUCTIONS TO CANDIDATES

(i) Answer Question **ONE** and any other **TWO** questions

This paper consists of 3 printed pages. Please turn over.

SECTION A (30Marks): Answer all questions from this section

QUESTION 1

- (a) Distinguish between **(4 Marks)**
- (i) Analog and digital data
 - (ii) Active attack and Passive attack
- (b) State and give an explanation of the four basic operations of a computer **(4 Marks)**
- (c) List and explain four categories of computer hardware. **(4 Marks)**
- (d) Explain a few of the different ways in which computers used forestry can be categorized. **(3 Marks)**
- (d) Describe what is distributed denial of service attack and how to mitigate against such attacks **(4 Marks)**
- (e) What is Cyber terrorism **(3 Marks)**
- (f) Write a java program to displaying the phrase Welcome to Java Programming! on the screen **(4 Marks)**
- (g) Describe the concept of a computer system and explain the information processing steps **(4 Marks)**

SECTION B (40Marks): Answer TWO questions from this section

QUESTION 2

- (a) Define **(5 Marks)**
- (i) system unit
 - (ii) workstation
 - (iii) notebook
 - (iv) stylus
 - (v) software or programs
- (b) Describe the two common designs of desktop computers used for forestry studies. **(2 Marks)**
- (c) List four types of computers that are designed for use by organizations, and are commonly used by multiple people at the same time. **(4 Marks)**
- (d) Discuss the main types of threat that could affect a computer system, and for each, describe the possible outcomes for an organization. **(5 Marks)**
- (e) Write a java program that displays "Java is SAFE" **(4 Marks)**

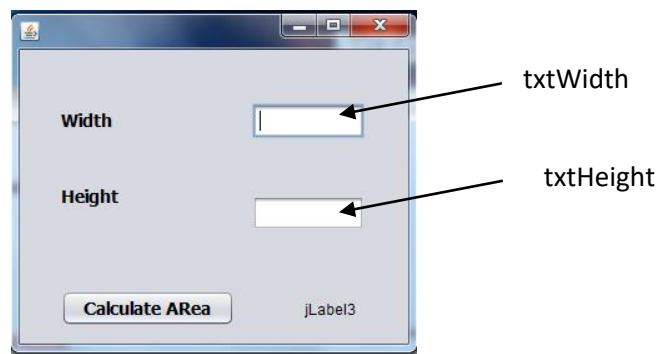
QUESTION 3

- (h) Explain how the following devices work indicating whether they are used input or output **(4 Marks)**
- (i) Speech devices

- (ii) Touch screen
 - (iii) Touch pad
 - (iv) Light pen
- (i) Briefly explain the key design issues that a network designer should take into consideration when designing a corporate network. **(5 marks)**
- (j) Explain the various ways computer technologies are being used to train Medical Doctors **(3 Marks)**
- (k) Explain the terms “Userless computers” and give two examples **(3 Marks)**
- (l) A single researcher sets out to conduct a research study at the Maasai Mara Game Reserve. List the types of personal computers that are available for him to use and state the one you will you recommend for him giving reason **(5 Marks)**

QUESTION 4

- a) Discuss the challenges that an organization which conducts its activities manually must overcome if they decide to adopt computer technology for their operations **(6 Marks)**
- b) Give four examples of methods used to prevent an unauthorized user from accessing a computer **(4 Marks)**
- c) Describe three control structures that can be used in a program **(3 Marks)**
- d) Write the code for the calculate area button to display the area in jLabel3 using the variables indicated in the following figure **(3 Marks)**



- e) Write a program to calculate area of a rectangle and display the result using a dialog box **(4 Marks)**
- END//**