GARISSA UNIVERSITY

UNIVERSITY EXAMINATION 2017/2018 ACADEMIC YEAR TWO
FIRST SEMESTER EXAMINATION

SUPPLEMENTARY/SPECIAL EXAMINATION

SCHOOL OF BUSINESS AND ECONOMICS

FOR THE DEGREE OF BACHELOR OF BUSINESS MANAGEMENT

COURSE CODE: BBM 220

COURSE TITLE: INTRODUCTION TO STRUCTURED COMPUTER PROGRAMMING

EXAMINATION DURATION: 3 HOURS

DATE: 22/03/18 **TIME: 2.00-5.00 PM**

INSTRUCTION TO CANDIDATES

- **The examination has SIX (6) questions**
- **Question ONE (1) is COMPULSORY**
- **Choose any other THREE (3) questions from the remaining FIVE (5) questions**
- **Use sketch diagrams to illustrate your answer whenever necessary**
- **Do not carry mobile phones or any other written materials in examination room**
- **Do not write on this paper**

This paper consists of TWO (2) printed pages ***please turn over***

QUESTION ONE (COMPULSORY)

(a) Differentiate between machine language and low level language **[2 marks]**

(b) Distinguish between procedural and visual programming **[4 marks]**

(c) A student would like to write a program that could compute and display the average of ten integers entered through the keyboard one at a time. Use a flow chart to design the program **[4 marks]**

(d) d. Assuming C programming language, evaluate the expression;

Z=a+b mod c*(d^2)

Given that a=10, b=23, c=7andd=5 **[5 marks]**

(e) Write a program that prompts the user to enter the height and base of triangle. Compute and display the area. The output should be in the format shown below **[10 marks]**

RECTANGLE

Height =

Base =

Its area is

Its base is

QUESTION TWO

(a) Write a program in C to compute the minimum number among three inputted integers **[10 marks]**

(b) The following is a segment of a C program created by a student. Use it to answer the question that follows

```
main ()
(
int I;
for (I=1; I less than=50; I++)
if ("I% d ", I)/n;
)
```

i. Write the output generated when the program is corrected and executed **[5 marks]**

QUESTION THREE

(a) Outline two reasons why program documentation is important. **[2 marks]**

(b) Explain three types of program testing. **[6 marks]**

(c) Write a C program code that would prompt the user to enter two integer values. The program should then compute the product and the sum of the two numbers and display the results. **[6 marks]**

QUESTION FOUR

(a) Explain two types of errors that may be encountered during program execution. **[4 marks]**

(b) The following are identifiers used in C programming language during program writing. myval, const, integer and switch. Citing a reason in each case, state whether these identifiers are valid or not. **[5 marks]**

(c) Write a program in C programming language that could generate random numbers between 0 and 1. **[6 marks]**

QUESTION FIVE

(a) Distinguish between register and static storages as used in C programming language **[4 marks]**

(b) Write a program in C programming language that would prompt a user to enter an integer. The program should then check whether the integer entered is a prime number and output the result **[6 marks]**

(c) Draw a flowchart that shows how to solve a quadratic equation **[5 marks]**

QUESTION SIX

(a) Differentiate between low level language from machine language. **[4 marks]**

(b) Describe three types of operators used in C programming language. **[6 marks]**

(c) Outline two uses of comments in C programming language **[5 marks]**