P. O.Box 845-50400 Busia(K)
principal@auc.ac.ke
Tel: +254 741 217 185
+254 736 044 469
off Busia-Malaba road

ALUPE UNIVERSITY COLLEGE
...Bastion of Knowledge....

OFFICE OF THE DEPUTY PRINCIPAL

ACADEMICS, RESEARCH AND STUDENTS' AFFAIRS

UNIVERSITY EXAMINATIONS

2018 /2019 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER REGULAR EXAMINATION

FOR THE DEGREE OF BACHELOR OF BUSINESS MANAGEMENT/BA.ECONOMICS

COURSE CODE: BBM 210

COURSE TITLE: COMPUTER PROGRAMMING

DATE:19/12/2018   **TIME: 2.00-5.00PM**

INSTRUCTION TO CANDIDATES

- **SEE INSIDE**

THIS PAPER CONSISTS OF 5 PRINTED PAGES   **PLEASE TURN OVER**

BBM 210: COMPUTER PROGRAMMING

STREAM: BBM   **DURATION: 3 HOURS**

INSTRUCTIONS TO CANDIDATES

  i.   *Answer Question **ONE** and any other **TWO** questions*

  ii.   *Do not write on the question paper*

Question One

a) Define the following terms:

 i) Pointer   (1 Mark)

ii) Relational operators   (1 Mark)

iii) Array   (1 Mark)

iv) Local Variable   (1 Mark)

b) Outline two types of computer software.   (2 Marks)

c) Describe TWO uses of compilers as software resources used in programming.   (2 Marks)

d) With a view of the correct structure of a C program, write a simple program to calculate your body mass index (BMI). Assume that BMI equals a person's weight in kilograms divided by height in meters.   (6 Marks)

e) With the use of an example, describe what variables are used for in programming. (3 Marks)

f) Differentiate between printf ("%C"); and printf (%S");   (2 Marks)

g) Given the following code fragment:

int i=36;

while (i>0)

i=i++;

 {

printf ("The numbers is %d, i);

}

i) What does the code do?   (2Marks)

ii) Write a similar code fragment using the "for" loop.   (3 Marks)

iii) Write a similar code fragment using the "do-while" loop.   (3 Marks)

h) Explain how an integer is declared in a C program.   (3 marks)

Question Two

a) A traveler from town A to town B that is N km apart can take W hours.

i) Represent your algorithm using a flowchart diagram.   (4 Marks)

ii) Write a C function program to calculate the speed of the travelers.   (3 Marks)

iii) Describe the function used in (ii) above in a C program.   (5 Marks)

b) With a view of showing how to use arrays, write a C program.   (5 Marks)

(c) Explain the THREE parts that you state when declaring an array.   (3 Marks)

Question Three

a) Differentiate between the "while" and "do-while" statements.   (4 Marks)

b) Explain what you understand by the term functions as used in C programming.   (2 Marks)

c) Write a C function that calculates the area of a square shape   (4 Marks)

d) Analyze the difference between passing arguments by value and passing arguments by reference? Elaborate with short examples.   (6 Marks)

e) List four advantages of C program.   (4 Marks)

Question Four

a) Explain any **three** data types used in C programming. Give examples of how each is used in variable declaration.   (6 Marks)

b) Explain the use of data files as used in programming.   (2 Marks)

c) Describe the difference between "printf" and "scanf" as used in C programming. (2 Marks)

d) Describe a syntax of an If…else statement   (2 Marks)

e) Define a switch statement   (2 Marks)

f) Explain **six** rules that apply to a switch statement   (6 Marks)

Question Five

a) Explain the steps followed when executing a C program.   (4 Marks)

b) Write a program in C that checks whether two numbers are equal or not.   (4 Marks)

c) Describe the "nested-if statement".   (4 Marks)

d) Differentiate between the "while" and "do-while" statements.   (4 Marks)

e) Explain the difference between Logical errors and Syntax error   (4Marks)