

KABARAK



UNIVERSITY

EXAMINATIONS

2008/2009 ACADEMIC YEAR

**FOR THE DEGREE OF BACHELOR OF EDUCATION
SCIENCE**

COURSE CODE: COMP 111

**COURSE TITLE: INTRODUCTION TO
PROGRAMMING**

STREAM: (SBL)

DAY:

TIME:

DATE:

INSTRUCTIONS:

Answer **ALL** questions.

PLEASE TURN OVER

Question One (30 Marks):

- a) Describe how programming languages are classified. [6 Marks]
- b) Define the following terms:
 - i. Programming. [2 Marks]
 - ii. Flowchart. [2 Marks]
 - iii. Debugging. [2 Marks]
 - iv. Testing. [2 Marks]
- c) Discuss the basic structure of a C program. [7 Marks]
- d) Write a program that performs the basic arithmetic operations. [5 Marks]
- e) Differentiate between constants and variables in programming. [4 Marks]

Question Two (20 Marks):

- a) Define an operating system. [3 Marks]
- b) Describe the drawbacks of Machine Language. [4 Marks]
- d) Differentiate between the following:
 - i. Loader and Linker. [3 Marks]
 - ii. Assembler and Compiler. [3 Marks]
 - iii. Application software and System software. [3 Marks]
- e) Write and explain the output of the following c program. [4 Marks]

```
#include<stdio.h>
main()
{
    int a=6, b=10;
    printf("a=%d\n,a++);
    printf("b=%d\n,++b);
}
```

Question Three(20 Marks):

- a) Write a C program to compute the average marks scored by a student who sat for 4 Subjects in an exam. [6 Marks]
- b) Describe the features of C language. [4 Marks]
- c) Describe any three binary operators. [6 Marks]
- d) Discuss the unary operator with an example. [4 Marks]

Question Four (20 Marks):

- a) Write a program in C that accepts two numbers and checks whether they are equal or not. [5 Marks]
- b) State three (3) categories of control statements. [3 Marks]
- c) Describe the nested-if statement. [4 Marks]
- d) Differentiate between the while and do-while statements. [4 Marks]
- e) Explain how values are assigned to variables. [4 Marks]

Question Five (20 Marks):

- a) What is a data type? Explain the basic data types in C. [5 Marks]
- b) List and explain formatted and unformatted input statements in C. [6 Marks]
- c) Write a program that prints the sum of the first n natural numbers. [5 Marks]
- d) Write the errors in the following program. [4 Marks]

```
main(  
  
    int m=4, n=8;  
    print ("m=%d\n",-m);  
    printf("n=%d\n",n--)  
}
```