KABARAK UNIVERSITY

UNIVERSITY EXAMINATIONS

2009/2010 ACADEMIC YEAR

FOR THE DEGREE OF BACHELOR OF BUSINESS MANAGEMENT & INFORMATION TECHNOLOGY

COURSE CODE: BMIT 226

COURSE TITLE: COMPUTER PROGAMMING

STREAM: Y2S2

DAY: FRIDAY

TIME: 9.00 – 12.00 P.M.

DATE: 06/08/2010

INSTRUCTIONS:

- Question **ONE** Compulsory
- Answer Question **ONE** and Any **Other THREE**

PLEASE TURNOVER

QUESTION ONE COMPULSORY

QUESTION ONE (40 marks)

a. . What is a procedural programming language? Give an example

[2marks]

b. State and explain the five main features of C programming language

[5 marks]

c. Explain any four derived data types used in C language   [4 marks]

d. Define an identifier? List all the rules for identifiers.   (3 marks)

e. Consider the following segment of a program:-

```
        ………………………….
      If(sex is male)
  {
      If (salary > 10000)
         Bonus=0.05 * balance;
           Else
            Bonus=0.02 * balance;
   }
      Else
        {
       Bonus=0.02 * balance;
        }
      Balance=balance * bonus;
```

Required:-

   a).Identify what type of If statement is this and why?   (2mrks)
   b).Explain the execution flow for the above program segment.   (3mrks)
   c). Draw a well labeled flow chart to represent the above execution procedure.

(3mrks)

f. WRITE A C++ program to find the largest value of any three numbers entered by the user through the keyboard.   [3 marks]

G.Define a constructor and hence explain its function and characteristics   (6 marks)

h. Write a C program that accepts student Roll number, Marks in three subjects and prints the calculated Total, Average.(It should be well commented).   (4mrks)

i. Explain function overloading in C++   [3 marks]

j. write down the syntax for declaring a 2 dimensional array   (2 marks)

SECTION B ANSWER ANY THREE QUESTIONS

QUESTION TWO (20 Marks)

a) Identify the error and rewrite the program   [4 marks]

```
# include <stdio.h>
main
{
        Integer  A,b, sum;
        printf ("ENTER VALUE FOR A ; ")
        scanf ("%d",$a);
        printf(ENTER VALUE FOR B ;");
        scanf("%d",&b);
        sum=a+b
        printf("Sum Of Given Two Numbers are %d" Sum);
} }
```

b) Write a c language program to read a number and find whether the given number is even or odd**.**   [5 marks]

c) Explain the steps involved in executing a C program   [4 marks]

d) . Explain the structure of a C++ program   [5 marks]

e) What is the function of Cin and Cout in C++   (2 marks)

QUESTION THREE (20 Marks)

a) . Using case statement, write a C++ or C program to display the day depending on the
   Choice entered by the user from the key board   [6 marks]

b) Discuss the C character set giving out examples in each case.   [4 marks]

c) Describe the class structure   [4 marks]

d) (i) What is a Pointer?   [2 marks]
   (ii) Describe four advantages of using pointers   [4 marks

QUESTION FOUR (20 Marks)

a) (i) What is variable.   [1 marks]
   (ii) What are the rules followed when declaring it.   [3 marks]

b) Differentiate the following:
          (i) Compiler
          (ii)Translator   [2 marks]

c) Discuss any three advantages for using functions in a program   [3 marks]

d) Describe the following functions.   [6 marks]
          (i) Call by value
           (ii) Call by reference
           (iii) Inline function
e) Write a C++ program to calculate the area of triangle   [5 marks]

QUESTION FIVE (20 Marks)

a) (i) What is inheritance?   [1marks]
  (ii) Discuss any Two types of inheritance available in C++.   [4 marks]

b) Write a C++ program to find the sum of first 100 natural Numbers   using for loop
     Statement   [4 marks]
c. Discuss both the primary and derived data types used in C.   (5 marks)
d. Explain the following terms:-
          i).Global variable
          ii).Object
          Iii) Encapsulation
          Iv) Derived class   (4 marks)

e. Explain any two logical operators used in C++   [2 marks]