Course Code   :   DCA-1
Course Title   :   Computer Fundamental and Programming
                                  in C
SLM Code -   :   C-101
Assignment Number   :   DCA(1)A/C-101/Assign/2011

Attempt all questions: Max.Marks. 25

Q.No.1   **(a)** What is calling by reference? How it is different from call by value?   (9)
              (b) Write a C function to swap two given numbers using call by
              reference mechanism.
              (c) Discuss all the functional units of a Computer.

Q.No.2   What is looping? How many loops are used in C Programming?
              Difference between 'While' and 'For' loop with example.   (4)

Q.No.3   (a) Write a C program to print the following triangle:
                                                                           (3)

```
          *
         ***
        *****
       *******
      *********
     ***********
```

              (b) Write a C program to read the internal test   marks of 25 students in a class
              and
              show the number of students who have scored more than 50% in the test.
              Make necessary assumptions.   (3)

Q.No.4   (a) Write a program in C for showing working of different logical operator in C.
              Your program should guide users with proper message/menu on the console. (3)

              (b) Write a function to find the area of a triangle whose length of three sides is
              given.   (3)

Course Code   :   DCA-2
Course Title   :   Internate & Web Designing
SLM Code -   :   C-102
Assignment Number   :   DCA(2)/C-102/Assign/2011

Attempt all questions: Max.Marks. 25

1.   (a)   What is Internet? Explain some of the internet application can be used for

             various purposes?   (4)

      (b)   What is computer network? Define the various types of networks? (3)

2.   (a)   What is e-mail? How could you create your own e-mail account?

      (b)   Explain the terms SMTP and HTTP ?   (6)

3.   (a)   What do you mean by internet and Ethernet?

      (b)   Define HTML ? And how would you create an unordered list?   (6)

4.   (a)   Discuss the process of inserting graphics in the HTML text?   (6)

      (b)   What is a password and explain how would you create password boxes?

Course Code   :   DCA-3
Course Title   :   Data Base Management System
SLM Code   :   C-103
Assignment Number   :   DCA(3)/C-103/Assign/2011

Attempt all questions.   Max.Marks – 25

Q.1   (a)   Define the terms database. DBMS. Why do we use DBMS?   (6)
      (b)   What work is performed by Database Administrator?
      (c)   What is difference between primary key and unique key?

Q.2   (a)   What is the difference bweteen simple and composite attribute.
      (b)   Convert this unnormalized form into first normal form (INF)   (6)

ECODE	DEPT	PROJCODE	HOURS
E101	Systems	P27	90
		P51	101
		P20	60
E305	Sales	P27	109
E309	ADMIN	P51	Null
		P27	72

      (c)   What is the difference between full functional dependency and partial
            dependence?

Q.3   (a)   STUDENT   (5)

S ID	Sname	Smarks
101	Nidhi	525
102	Priya	535
103	Rohan	550

            Write statements to-

      1.   Create the table student (mention above).

      2.   Set the Sname Versha instead of Nidhi.

      3.   Add new column address in student table.

4.   Delete the row where s_id = 102

5.   Delete the column Smarks in student table.

      (b)   Why do we use view? Give the advantages of view.

4.   Write short notes on-   (8)

1.   Database Security.

2.   Inventory information system.

3.   Database recovery

4.   Normalization

Course Code	:	DCA-4	
Course Title	:	Data Structure Through C'	
SLM Code	:	C-104	
Assignment Number	:	DCA(4)/C-104/Assign/2011	

Attempt all questions.   Max.Marks – 25

Q.1 (a) What is Decision Table? Explain with Example.   (6)
    (b) What do you mean by algorithm? Explain its need.
    (c) Define Data Structure? List types of Data Structure.

Q.2 (a) Write a C Program to swap two numbers using the concept of pointers. (8)
    (b) What is an array? What are different types of array?
    (c) Give the limitations of array of Pointers to strings.
    (d) Write short note on
        Arrays within Structure

Q.3 (a) What is a Thread? How is it useful? Give the advantages of threading a
        binary (search) tree?   (6)
    (b) What are the different operations that modify tree?

Q.4 (a) Write C Procedure to implement-   (3)
        1.   Insertion Sort
        2.   Quick Sort
        3.   Merge Sort

    (b) Explain the algorithm for selection sort with example.   (2)

Course Code	:	DCA-5	
Course Title	:	Object Oriented Programming and C++	
SLM Code	:	C-105	
Assignment Number	:	DCA(5)/C-105/Assign/2011	

Attempt all questions.   Max.Marks – 25

Q.1 (a) What is the object oriented programming? How it is different from the
        procedure oriented programming?   (6)

    (b) Explain the operators used in C^{++} with example.

Q.2 (a) What do you mean by preprocessor directives? Explain with example.(6)
    (b) What do you mean by functions in C++ when will you make a function
        intone and why?

Q.3 (a) What is inheritance? Explain the different forms of inheritance? (6)
    (b) Explain the constructors and destructors used in C++.

Q.4 (a) Distinguish between function overloading and operator overloading with

        the help of example?   (7)

    (b) Explain the different file opening modes?