Roll No. X.B.6./.CE./.03.8

FIRST SEMESTER

B.Tech.(GROUP-B)

END SEMESTER EXAMINATION

NOVEMBER-2010

COE-116 PROGRAMMING FUNDAMENTALS

Time: 3 Hours

Max. Marks : 70

Note :	Question No. **ONE** is compulsory.
	Answer any **FOUR** questions from the remaining.
	Assume suitable missing data, if any.

1   Answer any seven parts.

[a] Define header files.

[b] Define Polymorphism.

[c] Keywords in C

[d] Difference between continue and break statement.

[e] Difference between global and local variable.

[f] Fundamental data types in C.

[g] Features of algorithms.

[h] Pre and post increment operator.

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2[a] What are decision control statements? Explain with suitable examples.   5

[b] Point out the errors if any and rewrite the correct code with output.

Main ( )

{

   int i = 1, j = 1;

   while (i++ < = 100)

     {

      While (j++ < = 200)

       {

nobu

```
                if (j == 150)
                    break;
                else
                    Printf("%d % d \n", i,j);
                }
            }
        }                                                                          4
```

[c] Write the code using variable *i* and its pointer *pi* to print the value of *i* and its address in the following format (output)

Address of	i = 6000
Value of	i = 3
Value of *i* using pointer	= 3

The address of *i* may have any value after 6000 also as assigned by the compiler.   5

3[a] Write the algorithms and draw the flow chart to check whether the given year is a leap year.   8

[b] Differentiate between actual and formal parameters.   3

[c] Explain the conditional operator and support it with a suitable example.   3

4[a] Define structure. Create structure for student data (Name, date of birth, roll no, class etc.)   4

[b] Write a programs using above structures to get and display data for 10 students.   6

[c] Explain different types of programming languages and their features.   4

5[a] Write a program to sort 10 numbers using any sorting technique. Explain the technique used in your program.   7

[b] Differentiate between call by value and call by reference mechanism.   3

[c] Write a program to swap two numbers using pointers.   4

6[a] Write a program to check whether the given number is prime or not.

[b] Consider int i[5] 4

Write a program to pass *i* to a function calsum ( ) as argument and return the sum of all the values in the array and Print sum and average. 7

[c] Write three library functions with their header files and purpose. 3

7 Write short notes on any *Four*:

[a] Features of OOPS.

[b] Constants in C.

[c] Files in C.

[d] Unary operator.

[e] Recursion.

[f] Loop control structures. 14