END TERM EXAMINATION

FIRST SEMESTER (BCA) - DECEMBER 2010

Paper Code : BCA -105	**Subject : Programming with C**
Paper ID : 20105	

Time : 3 Hours **Maximum Marks : 75**

Note : Q. 1 is compulsory. Attempt one question from each unit.

Q. 1. Attempt all questions : (10×2.5=25)

(a) What is the difference between while and do-while statements?

(b) What will be the output of the following 'C' code :

```
void main ( )
{       int array [2] [2] [3] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11} ;
        printf ("%d", array [1] [0] [2]) ;
}
```

(c) What are different data types in 'C'?

(d) What is the purpose of gets () and puts ()?

(e) List different library functions.

(f) What are pointers?

(g) Can we pass a function to another function. If yes how?

(h) What are static variables?

(i) Explain shift operator.

(j) What are the applications of 'C' programming?

UNIT - I

Q. 2. (a) Write a program to generate the following output using loop structure. (6.5)

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

(b) Explain the following with an example : **(6)**

    (i)   Switch statement

    (ii) Continue statement

    (iii) Break statement

OR

Q. 3. **(a)** Explain different control structures used in 'C' language with an example. **(7·5)**

    (b) Write a program to reverse the given integer number.

        (E.g. input : 2356, the reverse is 6532) **(5)**

UNIT - II

Q. 4. **(a)** Explain different storage classes in 'C' with an example. **(6·5)**

    (b) Explain the concept of call by value and call by reference. **(6)**

OR

Q. 5. **(a)** Write a program using array to read the ten integers and find the number of positive and negative numbers. **(7)**

    (b) Write a program using pointers to swap the values of two integer numbers. **(5·5)**

UNIT - III

Q. 6. **(a)** Write a program that reads a line of text from a data file character by character and displays the text on the screen. **(5)**

    (b) Explain the following wit 'C' code segment :

        (i)   Structures within structures and arrays within structures.

        (ii) Structures as function parameters. **(7·5)**

Q. 7. **(a)** What is different file handling functions? Explain with example. **(6)**

(b) Write a 'C' program which takes input of the student records (roll no., name, group, percentage of marks) and stores these records in a file according to the percentage of marks. **(6·5)**

UNIT - IV

Q. 8. **(a)** Write a 'C' program which contains the functions each from the following standard libraries : **(12·5)**

(i) string.h

(ii) math.h

(iii) stdio.h

(iv) ctype.h

OR

Q. 9. **(a)** What is preprocessor directive and explain different preprocessor directives with example? **(7)**

(b) Write a program to count the number of vowels in a given string. **(5·5)**

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