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# 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 with 'C' code segment :

(i) Structures within structures and arrays within structures.

(ii) Structures as function parameters. (7.5)

OR

- 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)

