END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER-2013-JANUARY-2014

Paper Code: BCA-105	**Subject: Introduction to Programming Using C**
	(Batch: 2011 onwards)
Time : 3 Hours	**Maximum Marks :75**

**Note: Attempt five questions including Q.no.1 which is compulsory.
Select one question from each unit.**

Q.1 (a) Write in brief about datatypes in C.   **(2.5x10=25)**
     (b) Explain the use of ternary operator.
     (c) What are Literals in C.?
     (d) Write rules for naming identifiers.
     (e) Explain use of relational operators.
     (f) Write in brief about Recursion.
     (g) Write & explain any 2 functions of process h header file.
     (h) Write short note on enum.
     (i) Write important features of C.
     (j) Explain use of "extern" keyword.

UNIT – I

Q.2 (a) Write a program to check whether a number is prime or not.   **(6.5)**
     (b) Explain the purpose of various loop control structures in C.   **(6)**

OR

Q.3 (a) Differentiate between "break" and "continue" using example program.   **(6)**
     (b) Write a program to generate following pattern: **(6.5)**

```
1
2   3
4   5   6
7   8   9   10
```

UNIT – II

Q.4 (a) Write a program that prints transpose of a 3X3 matrix entered by the user. **(6)**
     (b) Write down benefits using functions in C. Also write a function to calculate factorial of a number.   **(6.5)**

OR

Q.5 (a) Compare Automatic storage class with static storage class in detail.   **(6)**
     (b) Write a C program that returns reversal of a number passed to a function. Function is to be implemented using call by reference parameter passing technique.   **(6.5)**

UNIT – III

Q.6 (a) Explain the concept of structure within a structure using complete program. **(6.5)**
     (b) Write short note on each:-   **(3+3)**
       (i) Array of pointers   (ii) Array of structures

OR

Q.7 (a) Write complete program to concatenate 2 strings using your own function. **(6.5)**
     (b) Write short note on each:-   **(3+3)**
       (i) What are macros?   (ii) How to pass structure to a function?

UNIT – IV

Q.8 (a) Write a complete program to write 5 student records to a file "Student.dat". **(6.5)**
     (b) Write short notes on:-   **(3+3)**
       (i) Typedef   (ii) Bitfields

OR

Q.9 (a) Write a program to copy contents of one file to another file.   **(6.5)**
     (b) Write down format of 3 functions each from string h and c type h.   **(6)**

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