END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER 2016

Paper Code: BCA-105	**Subject: Introduction to Programming Language Using C**
Time: 3 Hours	**Maximum Marks: 75**

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

Q1   (a) What is ternary operator? Write a program to find smallest among 3 numbers using ternary operator.
(b) What are Bitwise operators?
(c) What are the basic data types and their associated range?
(d) Differentiate between exit control loop and entry control loop.
(e) Differentiate between break and continue.
(f) What do you mean by variable? What are the various rules for naming a variable in C?
(g) Define operators. What are the different types of operators?
(h) What is modulus operator? What are the restrictions of modulus operator?
(i) Differentiate memory allocation for structure and array?
(j) Why does goto statement is not preferred in C-programming.
(2.5x10=25)

UNIT-I

Q2   (a) List the different types of loop control statements and explain them with suitable examples. **(6)**
(b) Write a program to display the following pattern as the output. **(6.5)**

```
a
a b
a b c
a b c d
a b c d e
```

Q3   (a) Write a program to reverse the given integer number. (Hint. Input: 1234, the reverse is 4321). **(6.5)**
(b) What is the difference between pass by reference and pass by value? Explain with suitable example. **(6)**

UNIT-II

Q4   (a) Explain the concept of static variable with the help of suitable example. **(4)**
(b) Differentiate between getc(), getch(), getche(), gets(). **(2)**
(c) Write a program to copy one string into another string without using inbuilt function. **(6.5)**

Q5   (a) Explain all storage classes in C with suitable example. **(6)**
(b) Differentiate between pointer to any array and array of pointers with suitable example. **(6.5)**

UNIT-III

Q6   (a) What is 'recursion? What are various conditions associated with recursion? Write a program to calculate X^Y using recursion where values for X and Y are entered by user. (Don't use pow()). **(6)**

P.T.O.

(b) What is pointer arithmetic? Explain with suitable examples.   **(6.5)**

Q7   Explain the following with suitable examples:-   **(12.5)**
(a) Nested Structure
(b) Arrays within Structure
(c) Structure as function parameter

UNIT-IV

Q8   (a) What are header files? Give the format of any three library functions
for each of these header files: ctype.h, stdio.h,math.h   **(6)**
(b) What is preprocessor directive? Explain different preprocessor
directives with examples.   **(6.5)**

Q9   What is file pointer? Write a program in C that write 10 integers in
data.txt file and copy into the duplicate.txt file.   **(12.5)**

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