

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER-2012

Paper Code: BCA105

Subject: Introduction to Programming
Language Using C

Time : 3 Hours

Maximum Marks : 75

Note: Q.no.1 is compulsory. Attempt one question from each unit.
Internal choice is indicated.

- Q1 Answer **any ten** of the following:- (2.5x10=25)
- (a) Type conversion
 - (b) Size of operator
 - (c) Pre increment vs. post increment
 - (d) %h and %g format codes
 - (e) Const keyword
 - (f) Logical operators
 - (g) User defined functions
 - (h) Register storage class
 - (i) Dangling else problem
 - (j) Which of the following are not the valid identifiers and why:- (i) static (ii) row total
 - (k) State true or false for the following and also give reasons:-
 - (i) Pointer is a variable which stores a value.
 - (ii) * is an address operator.

UNIT-I

- Q2 (a) Write a program to print all Armstrong numbers between 1 and 200. (7)
(b) What is ternary operator? Write a program to find smallest of 3 numbers using ternary operator. (5.5)

OR

- Q3 (a) Which one is better switch case or else if ladder? Give suitable example in support of your answer. (6.5)
(b) Write a program to display the following pattern as the output:- (6)
- ```
1
2 3
4 5 6
7 8 9 10
```

## UNIT-II

- Q4 (a) Write a program using functions which takes as its arguments the year and checks whether the year is a leap year or not and then displays an appropriate message on the screen. (6)  
(b) Write a program to calculate factorial of a number with and without recursion both. (6.5)

OR

- Q5 (a) Differentiate between call by value and call by reference. (6)  
(b) Write a program to check whether a word is a palindrome or not. (6.5)

## UNIT-III

- Q6 (a) Can we pass arguments in a macro? If yes, give example. (5)  
(b) Differentiate between #include and #define directives. (5)  
(c) What is pointer to a pointer? (2.5)

OR

- Q7 (a) Write a menu driven program for performing all 4 string manipulation functions (copy, compare, length, concat) using functions from string.h. (8.5)  
(b) Write a note on extern variables. (4)

## UNIT-IV

- Q8 (a) Write a program using structures to read and display the student information (roll no, name, fees, DoB). (7.5)  
(b) Explain the difference between structure and union. (5)

OR

- Q9 (a) WAP to read the values from a file and save the Even values in a file named EVEN and odd values in a file named ODD. (8.5)  
(b) Differentiate between text and binary files. (4)