

Roll No.....

Total No. of Questions : 13]

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**J-3167[S-1023]**

**[2037]**

**BCA (Semester - 1<sup>st</sup>)  
PROGRAMMING IN C  
(BCA - 104)**

Time : 03 Hours

Maximum Marks : 75

**Instruction to Candidates:**

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

**Section - A**

**Q1)**

**(15 x 2 = 30)**

- a) What is the Working principle of prefix operators? Give example.
- b) What is the significance of **gets** function?
- c) What are library functions?
- d) What are symbolic constants? Give examples.
- e) What are the naming rules of identifier?
- f) Differentiate between for and while loop.
- g) What are the advantages of user-defined functions?
- h) What are storage classes?
- i) What is dynamic memory allocation?
- j) List the applications of pointers in C.
- k) What are the conditions to perform recursion?
- l) Differentiate between structures and unions.
- m) What are the advantages of data file over other data types?
- n) What are the advantages of structures?
- o) How is binary search different from linear search?

**P.T.O.**

## Section - B

(9 x 5 = 45)

- Q2)** Explain basic data types available in C with the help of example.
- Q3)** Discuss the various operators available in C with the help of example.
- Q4)** Write a program to swap two integer numbers without using the temporary variable.
- Q5)** Explain the following constants with examples :  
(a) Octal Integer Constants      (b) Hexadecimal Integer Constants.
- Q6)** Write a short note on Recursion v/s Iteration.
- Q7)** Explain the difference between break and continue statements with example(s).
- Q8)** Write a program to find the sum of digits of an integer number entered by the user.
- Q9)** Explain with example relationship between single dimensional array and pointers.
- Q10)** Write a program in C to sort in ascending order integer elements of one-dimensional array.
- Q11)** Explain array of structures with example.
- Q12)** Write a program to create a file and display its contents. Assume suitable data.
- Q13)** Explain with example passing of structure to function.

