

Roll No. ....

Total No. of Questions : 07]

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**BCA (Sem.-1<sup>st</sup>)**  
**PROGRAMMING IN C**  
**SUBJECT CODE : BC - 104 (N2)**  
**Paper ID : [B0204]**

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

**Instruction to Candidates:**

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.

**Section - A**

**Q1)**

**(10 × 2 = 20)**

- a) What do you understand by programming paradigm? Name various programming paradigm.
- b) Differentiate between `strlen()` and `sizeof()` with suitable examples.
- c) Write any two advantages of pointers?
- d) What is *typedef* declaration? Give suitable example.
- e) What are the three constructs that govern statement flow?
- f) Give the function of *size of* operator?
- g) What does the file `iostream.h` consists of ?
- h) How to open or close a file?
- i) How is a static variable different from a static function?
- j) Identify the error in the following C statement.

```
int x[8], i;  
for (i = 0; i <= 8; ++i)  
x[i] = i;
```

Will the error be defected? If so when?

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P.T.O.

Section - B

(4 × 10 = 40)

- Q2)** (a) Explain basic data types available in C with the help of example.  
(b) Write a function in C to find the sum of the following series :  
1 + 2 + 3 + 4 + 5 + 6 + 7 + ..... up to n terms.
- Q3)** (a) Compare all the three loops available in C.  
(b) Explain the various character input/output functions with the help of suitable examples.
- Q4)** (a) Write a program in C to sort in ascending order integer elements of one dimensional array.  
(b) Differentiate between pass by value and pass by reference with the help of example.
- Q5)** (a) Write a program to concatenate two strings.  
(b) Explain the concept of passing array to functions.
- Q6)** (a) Explain the relationship of one dimensional array with pointers.  
(b) Write a program in C to bubble sort the given 10 numbers.
- Q7)** (a) Write a program using C to compute transpose of a matrix.  
(b) What is a class? How the objects are created? Explain with help of examples.

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