

Roll No. ....

Total No. of Pages : 02

Total No. of Questions : 07

**BCA (Sem.-1)**  
**PROGRAMMING IN C**  
**Subject Code : BC-104**  
**Paper ID : [B0204]**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY.
2. Attempt any FOUR questions from SECTION-B.

**SECTION-A (10 × 2 = 20 Marks)**

1. (a) List the functions related to the header file time.h.  
(b) Give an example of function returning pointer.  
(c) Difference between fseek() and ftell().  
(d) What is enumerated data type ?  
(e) What do you mean by function Prototype?  
(f) What will be the output of the following  

```
int a = 5, b, c ;  
b = ++a;  
c = a++;  
Printf(“%d %d %d \n”, a,b,c)
```

  
(g) Differentiate between type casting and type conversion.  
(h) Is array index out of bounds allowed in C? Justify your answer.  
(i) Which is better amongst the Binary search and Linear search and why ?  
(j) Why there is a need of structure initialization ?

**SECTION-B** (4 × 10 = 40 Marks)

2. (a) Write a function that interchanges and prints the value of two integers A and B without using any extra variable.  
(b) Define recursion.
3. (a) Differentiate between a structure and an array. How you can declare an array of structures? Give an example.  
(b) What is the self referential structure? Can a union be self-referenced?
4. List and explain different types of data types in C. Also differentiate between signed and unsigned data types with reference to range of memory they occupy.
5. (a) What are the differences between while and do while construct?  
(b) Write a program using recursive function to print Fibonacci series.
6. (a) Explain in detail various types of storage classes.  
(b) Differentiate between break and continue statements.
7. (a) Write a program in C to sort integer elements of one dimensional array in ascending order.  
(b) Write a program to copy the contents of one file to another.