

**21/225-C****B.C.A. (First Semester)****Examination, 2021****Paper : Second (103)****Programming Principles and C Language***Time : Three Hours / [ Maximum Marks : 70***Note :** Attempt questions from **all** sections as per instructions.**Section-A****Note :** Answer **all** parts of this question. Give the answer of each part in about 50 words.  
 $1\frac{1}{2} \times 10 = 15$ 

1. (i) List any three advantage of flowchart.
- (ii) What is an operator?
- (iii) Differentiate between while and do while loop.
- (iv) What is an array?
- (v) What do you mean by Nesting of function?

**P.T.O.****(2)**

- (vi) What is meant by the address of a memory cell?
- (vii) Differentiate between structure and union.
- (viii) What is a structure member?
- (ix) What is the primary advantage to using a data file? <https://www.vbspustudy.com>
- (x) Define dynamic memory allocation.

**Section-B****Note :** Attempt **all** questions. Give answer of each question in about 200 words.**7×5=35**

2. Describe about different type of programming languages.

**OR**

What do you mean by Flowchart? Draw the flowchart to find the largest number among three number?

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3. What is the purpose of the for statement?  
How does it differ from the while statement  
and do-while statement? Explain with  
example.

**OR**

Write a program to find all the prime  
numbers between 1 to 100.

4. Write a 'C' program to find the factorial of a  
given number using recursion.

**OR**

What are different types of Parameter of  
Function? Explain with the help example.

5. Write a 'C' program to create a structure  
containing student Roll No., Name and  
Marks. Display student information having  
marks greater than 60.

**OR**

What do you mean by structure within  
structure? Explain with example.

6. Define File. Explain different operations  
performed on File.

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**P.T.O.**

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**OR**

Write a 'C' program to accept n numbers  
from user. Sort elements in ascending order  
using Dynamic Memory Allocation.

### **Section-C**

**Note :** Attempt any **two** questions. Give answer  
of each question in about 500 words.

10×2=20

7. Describe several different types of operators  
that are included in C.
8. Give the selection process of the switch  
statement and explain switch case  
statement with syntax.
9. Write a program in 'C' to Compute matrix  
multiplication.
10. Discuss in detail about random access file  
with suitable example.
11. Write a 'C' program to check whether a  
string is palindrome or not.

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