

Roll No. ....

Total Pages : 3

**311201**

**August/September 2022**  
**BCA II SEMESTER**  
**C Programming (BCA-17-106)**

Time : 3 Hours]

[Max. Marks : 75

*Instructions :*

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

**PART-A**

1. (a) What information does data type of a variable provide? (1.5)
- (b) Explain goto and break statement. (1.5)
- (c) Differentiate between local and global variable. (1.5)
- (d) What are pointers? (1.5)
- (e) What is type casting? (1.5)
- (f) Why nesting of statements is done? (1.5)

311201/360/111/240

194 [P.T.O.]

- (g) Explain getch(), getche() and gets() with example. (1.5)
- (h) What is an array? How memory allocation is done? (1.5)
- (i) What is a string? (1.5)
- (j) What is a function? How it is declared? (1.5)

### PART-B

2. (a) What are the various arithmetic and conditional operators? Explain in detail. (7)
- (b) Write a program to print all the vowels present in a string. (8)
3. (a) Explain switch statement with an example. (7)
- (b) Write a program to find the reverse of a number and also to find the sum of its digits. (8)
4. (a) What is an algorithm? Write an algorithm to calculate the prime number. (7)
- (b) Write a program to find the largest element in a string. (8)
5. (a) Write a program to calculate factorial of a number using recursion. (7)

- (b) Differentiate between call by value and call by reference with example. (8)

6. (a) Design a flowchart to print the Fibonacci series. (7)
- (b) What are the various storage classes in C? Explain with example. (8)

7. (a) Write a program to print the sum of the series [9 + 99 + 999 + 9999 ... ]. (7)
- (b) Write a program to calculate the roots of a quadratic equation. (8)
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