QP CODE
M1037

Enrollment Number: ……

Name: ……

BCA DEGREE EXAMINATIONS, OCTOBER 2025
First Semester
Bachelor of Computer Applications
B21CA02DC – Problem Solving and Programming in C
(Supplementary/Improvement)
(2024 January admissions)

Time: 3 Hours **Max Marks: 70**

Section A

Answer any ten of the following questions in a word or sentence each. Each question carries 1 mark.

1. Define an algorithm.
2. What is the function of a language translator?
3. In which section are the symbolic constants declared?
4. Which function is used to get formatted input in C?
5. Write the output of the following code.
   printf("%3d",0);
6. Give an example for a loop that tests condition at the bottom of the loop.
7. Define a function.
8. What is a structure data type?
9. What is the default return type of a function?
10. Which function is present in all C programs?
11. What is meant by life span of a variable?
12. Which mode is used to append to a file?
13. Which function is used to read integer value from a file?
14. Which is the directive that defines a macro?
15. What is a pre-processor?

(1X10=10)

Section B

Answer any five of the following questions in two or three sentences each. Each question carries 2 marks.

16. What are the steps involved in problem solving?
17. Explain any two tokens.
18. Explain if—else if ladder.
19. Write a program to print 1 to 10 using for loop.

20. Write a program to check whether a number is odd or even using user defined function.
21. Compare recursion and iteration on two points.
22. Write the output of the following code.

```
void main()
 {
  printf("Hai");
  main();
   return 0;
 }
```

23. Mention the initial value of the following storage classes
    a) extern b) Register
24. What are command line arguments?
25. Give the use of rewind function.

(2X5=10)

Section C

Answer any five of the following questions in one page each. Each question carries 4 marks.

26. Explain type conversion with example.
27. Write a program to find the largest of three using conditional operator.
28. Explain the structure of a C program.
29. Write a program to print the positive difference between two numbers.
30. Explain switch case with an example.
31. Explain the difference between break and continue with examples.
32. What are the advantages of functions?
33. Explain call by value and call by reference.
34. List any four basic file operations.
35. Compare macros and functions.

(4X5=20)

Section D

Answer any two of the following questions in three pages each. Each question carries 15 marks.

36. Explain operators in C.
37. Explain control structures and looping in C.
38. Write a program to find the largest and second largest element in an array using function.
39. Write a program to implement file copy using command line arguments.

(15X2=30)