(ii) Recursion function

Or

- (b) Explain the following
 - (i) Arrays and Strings
 - (ii) String Manipulation
- 19. (a) Discuss briefly the pointers to function with suitable code.

Or

- (b) Explain how to declare a structure with pointers and give an example to access the elements of the structure.
- 20. (a) Explain the file handling statements with example code.

Or

- (b) Explain the following
 - (i) Register variable
 - (ii) Preprocessor

S.No. 4194

NSRGA 1

(For candidates admitted from 2003-2004 onwards)

B.C.A. DEGREE EXAMINATION, NOVEMBER 2023.

Part III — Computer Applications — Major

PROGRAMMING IN C

Time: Three hours Maximum: 100 marks

SECTION A — $(10 \times 2 = 20)$

Answer ALL questions

- 1. What is mixed mode arithmetic expression?
- 2. What do you mean by type casting?
- 3. What is a multi-dimensional array? Give example
- 4. What is meant by nested loop?
- 5. What are storage classes in C language?
- 6. What is an array? How array can be declared?
- 7. How does a structure differ from an array?
- 8. Write any two uses of a pointer

- 9. What are the various modes of file can be opened?
- 10. What is the use of #error directives?

SECTION B —
$$(5 \times 6 = 30)$$

Answer ALL questions, Choosing either (a) or (b)

11. (a) Describe the structure of C with example program.

Or

- (b) Describe the basic types of constants and variables.
- 12. (a) What is the purpose of the scanf() function?

 Compare it with getchar() function.

Or

- (b) What is difference between break and continue statement? Explain.
- 13. (a) Describe the function declaration and definition with example code.

Or

(b) How to declare and initialize the arrays in C language?

14. (a) Explain how to declare and use the pointer variables? Give example.

Or

- (b) Describe briefly about the array of pointers with example code.
- 15. (a) What is meant by Macro substitution? Explain with example.

Or

(b) Explain bitwise operators with example.

SECTION C —
$$(5 \times 10 = 50)$$

Answer ALL the questions

16. (a) List out and explain the various operators in C language.

Or

- (b) List out the various basic data types in C language. Explain with example.
- 17. (a) Explain the conditional control flow statements with suitable example.

 \mathbf{Or}

(b) Discuss the looping statements with suitable example.