**I Semester B.C.A. Degree Examination, February/March 2024**
**(NEP Scheme) (Freshers and Repeaters)**
**COMPUTER APPLICATIONS**
**Programming in C**

Time : 2½ Hours

Max. Marks : 60

*Instruction* : *Answer **all** the Sections.*

### SECTION – A

I. Answer **any six** questions. **Each** question carries **two** marks.　　(6×2=12)

1) Write any two merits of 'C' programming language.

2) Mention any five 'C' keywords.

3) Differentiate between getch() and getchar().

4) What are constants ? Give example.

5) Write the general syntax of conditional operator.

6) Differentiate between Break and Continue statement.

7) What is the use of typedef keyword ?

8) Mention the types of arrays.

9) How to access addresses and value of variable using pointers ?

### SECTION – B

II. Answer **any four** questions. **Each** question carries **six** marks.　　(4×6=24)

10) What are the rules to be followed while constructing a variable ? Give one example for each rule.

11) Explain for loop with an example.

12) What are the advantages and disadvantages of arrays ?

13) Explain any 4 character handling function with an example.

14) Differentiate between structure and union. Give an example.

15) What are the advantages and disadvantages of pointers ?

**P.T.O.**

## SECTION – C

III. Answer **any three** questions. **Each** question carries **eight** marks.          (3×8=24)

16) a) Explain the structure of C program with example.                          6

    b) Give the memory size (in terms of bytes) of data type in C.               2

17) a) Explain nested if with an example.                                        4

    b) Write program to find sum of first 'N' natural number.                    4

18) a) Explain two dimensional arrays.                                           3

    b) Write a 'C' program to read, display and to find the trace of a square matrix.                                                                     5

19) a) Explain the different operations on strings.                              3

    b) Write a 'C' program to find the quadratic equation.                       5

20) Discuss the categories of user-defined functions.                           8