Reg. No. | | | | | | | | | | | |

BCACACS 102

First Semester B.C.A. Degree Examination, December 2024/January 2025
(SEP) (2024-2025 Batch Onwards)
PROGRAMMING IN C

Time : 3 Hours Max. Marks : 80

***Note** : Answer **any ten** questions from Part – **A** and **one full** question from **each** Unit of Part – **B**.*

PART – A

1. Answer **any ten** questions : **(10×2=20)**

a) What are tokens ? Give any two examples.

b) List the rules to be followed for naming an identifier/variable.

c) What are comments ? How to write comments in C ?

d) List any four unformatted I/O functions available in C.

e) What is an array ? Write a 'C' statement to declare an integer array of size 100.

f) What is the difference between = and = = operators ?

g) Write the syntax of simple if statement. Give an example.

h) Give the syntax of goto statement. Give an example.

i) Differentiate automatic and static variables.

j) List any four-character handling functions in C.

k) Specify how to declare a pointer variable and initialization of it.

l) What are the different modes of opening a file in C ?

P.T.O.

PART – B
UNIT – I

2. a) Explain scanf() function with its syntax and example.
   b) List and explain primary data types available in 'C'.
   c) What are constants ? How they are classified ? Give example for each. **(4+5+6)**

3. a) Explain keywords and identifiers. Give example for each.
   b) Explain printf() function with its syntax and example.
   c) Explain the structure of C program with the help of a block diagram. **(4+5+6)**

UNIT – II

4. a) Explain for statement with syntax and example.
   b) Explain switch statement with syntax and example.
   c) List and explain arithmetic and relational operators in C with examples. **(4+5+6)**

5. a) Explain 'continue' and 'break' statement with syntax and example.
   b) Differentiate while and do .. while statement with syntax.
   c) Explain if.. else.. if ladder and nested if statements with syntax and example. **(4+5+6)**

UNIT – III

6. a) List and explain any four string handling functions available in C.
   b) What is a recursion ? Write a program to find factorial of a number using recursive function.
   c) How do you declare and initialize one dimensional array ? Write a program to read 'n' elements into an array and search for an item in the given array. **(4+5+6)**

7. a) Explain any two categories of user defined functions with example.
   b) Write a note on nesting of functions with example.
   c) What is a string ? How do you declare, initialize, read and print a string ? **(4+5+6)**

UNIT – IV

8. a) What are preprocessor directives ? Write macros to :
   i) Find the sum of a, b and c.
   ii) Find maximum of x and y.
   iii) Find product of e, f and g.
   b) What is union ? How it differs from structure ? Explain with example.
   c) Explain array of structure with the help of an example program. **(6+4+5)**

9. a) What is a pointer in 'C' ? Write a note on pointer arithmetic.
   b) Explain with example, defining a structure, declaring structure variable and accessing structure members.
   c) Compare :
   i) getc() and getw()
   ii) fscanf() and scanf()
   iii) putc() and putchar(). **(4+5+6)**
