

October 2025

B.A./B.Sc.

Fifth Semester

CORE – 12

STATISTICS

Course Code: STC 5.21

(Statistical Computing Using C/C++ Programming)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. (a) Who created the C language? What are the merits of C language? How are comments written in a C program? Illustrate with an example. 1+3+1+3=7
(b) What is an identifier in C programming? Write down the general rules for naming a variable in C. Write a C program to illustrate the use of different types of variables in C. 1+3+3=7
2. (a) Mention the year and place of development of C language. Write a note on escape sequence in C programming. Write a C program to show how tab and new line are created. 2+3+2=7
(b) What is the difference between “=” and “= =” operators? Write a note on different assignment operators. 2+5=7

UNIT-II

3. (a) What are library functions in C? Write a note on common header files in C. Give two function examples of each of them with their purposes. 2+3+4=9
(b) What is memory address in C? Write a C program to ask the age of a person and display “You are eligible to vote”, if the person is 18 years or older. 2+3=5
4. (a) What function is used in C for user input? Mention the two arguments used with that function. Write a C program to take a character from keyboard and display the value. 1+2+3=6

- (b) Mention the operator which is used with memory address. Write a note on ternary operator in C. Write a C program to illustrate ternary operator. 1+3+4=8

UNIT-III

5. (a) Write a note on looping in C. Write a C program to display the even numbers between 0 and 20. 3+4=7
(b) Write a note on arrays in C. What is the use of size of () operator? Write a C program to show how size of () operator is used to find the length of a string. 3+1+3=7
6. (a) Write a note on nested loop in C. Write a C program to make a multiplication table from 10 to 100. 3+4=7
(b) What are strings in C? Write a C program to illustrate loop through a string. 3+4=7

UNIT-IV

7. (a) What are the two basic types of functions in C? Write down the merits of a function. Write a C program to multiply two integers using function. 2+2+4=8
(b) What do you understand by scopes in a C program? Illustrate with an example. 3+3=6
8. (a) What are parameters and arguments of a function? Give an example of a function to get a return value. What are the two parts of a function? 3+3+2=7
(b) Write notes on auto and static storage classes. What do you understand by recursion? 4+3=7

UNIT-V

9. (a) How do we get the memory address of a variable? Write a C program to show how to create pointer variable. What is dereference operator? 2+4+2=8
(b) How is a structure created in C? What is the syntax used to access members of a structure? 5+1=6
10. (a) Define pointer. Show, with an example, how to create a pointer variable. Write a C program to display the elements of an array using pointer. 2+3+3=8

(b) What are static and dynamic memory in C? Differentiate between malloc () and calloc () functions.

4+2=6
