

2024/FYUG/ODD/SEM/
STASEC-201T/152

FYUG Odd Semester Exam., 2024

STATISTICS
(3rd Semester)

Course No. : STASEC-201T

(Statistical Computing Using C)

Full Marks : 50

Pass Marks : 20

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any *three* from the following : $1 \times 3 = 3$
- (a) What are C/C++ tokens?
 - (b) Define symbolic constants in C/C++.
 - (c) What is the role of keywords in C program?
 - (d) What are numeric constants?

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(2)

2. Answer any *one* from the following : 2
- (a) Explain the difference between basic, enumerated and derived data types in C.
 - (b) How are variables declared and assigned in C?
3. Answer any *one* from the following : 5
- (a) Describe different types of constants in C with one example in each case.
 - (b) Write a C program that demonstrates the use of variables and constants.

UNIT—II

4. Answer any *three* from the following : 1×3=3
- (a) What are assignment operators in C?
 - (b) How is scanf function used in C to read input?
 - (c) Define increment and decrement operators in C.
 - (d) What is a purpose of logical operators in C?
5. Answer any *one* from the following : 2
- (a) What are the commonly used input/output functions in C? How are they accessed?

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(3)

- (b) Explain how arithmetic expressions are evaluated in C.
6. Answer any *one* from the following : 5
- (a) Describe in detail the various operators included in C.
 - (b) (i) Write a note on library functions in C. 3
 - (ii) Write a program that reads and prints data using scanf and printf commands. 2

UNIT—III

7. Answer any *three* from the following : 1×3=3
- (a) What is the difference between if and else-if statement?
 - (b) What is the function of break statement in loop?
 - (c) What is a loop in C program?
 - (d) What is the use of jump statement in C?
8. Answer any *one* from the following : 2
- (a) What is an infinite loop? Illustrate with the help of an example.
 - (b) Explain the working of a for loop with an example.

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(4)

9. Answer any *one* from the following : 5
- (a) Discuss the different types of loops in C/C++ with examples.
 - (b) Write a program that demonstrates decision-making using if-else and switch statements.

UNIT—IV

10. Answer any *three* from the following : 1×3=3
- (a) How do you declare and initialize a one-dimensional array?
 - (b) What is a character array in C?
 - (c) What is the difference between one-dimensional array and two-dimensional array?
 - (d) What is a string?
11. Answer any *one* from the following : 2
- (a) How are arrays passed to functions in C?
 - (b) Are the following array declarations correct? Justify :
 - (i) `int a[25];`
 - (ii) `int size = 10, b [size];`

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(5)

12. Answer any *one* from the following : 5
- (a) Write a program to demonstrate the use of a two-dimensional array.
 - (b) (i) Discuss the use of scanf function to read strings from terminal. 3
 - (ii) Explain how strings are written to screen using printf function. 2

UNIT—V

13. Answer any *three* from the following : 1×3=3
- (a) What are arguments?
 - (b) What is meant by a function call?
 - (c) How are arguments passed to functions in C?
 - (d) What is recursion?
14. Answer any *one* from the following : 2
- (a) Explain the purpose of the keyword void in a function declaration.
 - (b) State the advantages of user-defined function.

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(6)

15. Answer any *one* from the following :

5

- (a) Explain the different categories of function included in C.
- (b) Explain how functions are called in C using examples.

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