B.Sc/BCA DEGREE(CBCS)REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

First Semester

Core Course - CS1CRT02 - METHODOLOGY OF PROGRAMMING AND C LANGUAGE

(Common to B.Sc Computer Applications Model III Triple Main, B.Sc Computer Science Model III, B.Sc Information Technology Model III, Bachelor of Computer Application)

2017 Admission Onwards

B7878054

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What is an Assembler ?

2. List out the characteristics of a good programming language.

3. What is a selection structure?

4. What are static variables?

5. What is the output of the following program
    ```
    main()
    {
    int x=100,y=200;
    printf("%d",(x>y)? x:y);
    }
    ```

6. Explain the use of getch() statement.

7. What is the use of 'default' in switch statement ?

8. How will you initialize an array?

9. Write short note on different arithmetic operations performed on a pointer.

10. Write the syntax of function definition.

11. What are the rules to followed while using recursion?

12. Define
    a) malloc b)calloc

<div align="right">(10×2=20)</div>

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What are the different classifications of programming languages?

14. What do you mean by Testing and Debugging ? Explain.

15. Why do you mean by type modifier? What are the different type conversions possible in C? Explain with example

16. Write a C program to check whether the given number is armstrong number or not.

17. Write a C program to print the series 1, 3, 9, 27, 81 ……upto a given 'n'.

18. Write a C Program to find the transpose a matrix.

19. What is the relationship between array and pointer?

20. How an array is passed to a function explain it with example

21. Explain the difference between structure and union with example

<div align="right">(6×5=30)</div>

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. a) What is a flowchart ? Explain the different symbols used in flow chart.
    b) Draw a flowchart to check whether a number is prime or not.

23. Explain different tokens in C language.

24. Write a C program to check whether two strings are equal or not without using string handling functions.

25. a) Explain storage classes in C with example
    b) What is recursion? What are its different types? Write a recursive function to find the factorial of a given integer.

<div align="right">(2×15=30)</div>