



C23-EC-ECII-306

23134

**BOARD DIPLOMA EXAMINATION, (C-23)
OCTOBER/NOVEMBER—2024
DECE – THIRD SEMESTER EXAMINATION
PROGRAMMING IN C AND METLAB**

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define constants and variables.
2. List the arithmetic operators in C.
3. Write the syntax of conditional expression.
4. List three iterative statements supported by C language.
5. Write the operation of getchar() and put char() functions.
6. State the use of functions in C.
7. Define a union.
8. How to find size of a structure?
9. List relational operators used in MATLAB.
10. Write the syntax of while loop in MATLAB.

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[Contd...

PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the increment and decrement operators in C.
12. Write a program to check whether a given number is Armstrong or not.
13. Write a program to perform arithmetic operations using switch case statement
14. Explain different function used for reading and writing strings.
15. Explain string manipulation functions strcat(), strlen(), strcmp(), strcpy().
16. Explain initialization and accessing the members of a structure.
17. Illustrate plot commands such as (i) Plot (x, y), (ii) title(), (iii) X label, (iv) Y label, (v) subplot
18. Illustrate with an example the matrix operations such as (i) addition; (ii) subtraction; (iii) multiplication; (iv) transpose and (v) inverse using MATLAB.

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