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BOARD DIPLOMA EXAMINATION, (C-16)

AUGUST/SEPTEMBER—2021

DECE - FOURTH SEMESTER EXAMINATION

PROGRAMMING IN C AND MATLAB

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. Give the syntax for printf() function.

2. List the five arithmetic operators in C.

3. State the importance of conditional expression.

4. Give the syntax for continue statement in C.

5. Define a pointer and give an example.

6. Give the purpose of strcpy() function.

7. How to get the size of a structure?

8. State the use of a union.

9. State the need for MATLAB in solving engineering problems.

10. Give the syntax for loop in MATLAB.

PART—B

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. *(a)* Explain the data types in C with examples.

(b) Give the structure of C program.

12. Explain switch case statement in C.

13. Write a C program to find the sum of two matrices.

14. Explain getchar(), getch(), getche(), and putchar() functions.

15. Define recursion and write a C program using recursive function.

16. Explain initialization and accessing the members of a structure with an example.

17. *(a)* Explain how to find the size of a structure.

(b) Differentiate between structure and union.

18. Explain plot commands such as plot(x,y), title(), xlabel(), ylabel(), and legend().

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