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6026

BOARD DIPLOMA EXAMINATION, (C-16)

OCTOBER/NOVEMBER—2023

DCME - FIRST YEAR EXAMINATION

PROGRAMMING IN C

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 the terms high level language and low level language.

2. What is a variable? Write about how to initialize variable.

3. Write any three differences between getchar() and scanf() functions.

4. Write about the importance of indentation.

5. List any three looping statements with syntax.

* 6. Write about how to declare an array and access elements in an array.

7. Define string.

8. Define function prototype.

9. List three dynamic memory allocation functions.

10. Mention the need of preprocessor directives.

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)*   Write a C program to illustrate functions with arguments with return values.   5

      (b)   Describe relational operators with their precedence.   5

12.   What is switch statement? Write a C program to illustrate the switch statement.   10

13.   Write a C program using do- while statement to print first n Fibonacci numbers.   10

14.   Explain two-dimensional array with an example program.   10

15.   Describe the scope, visibility and lifetime of variables in functions.   10

16.   Explain about how to access array elements using pointers.   10

17.   *(a)*   Explain array of structures with an example.   5

      (b)   Write any five differences between structure and union.   5

18.   Explain with an example macro substitution using #.

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