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C16–CM/IT–106

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BOARD DIPLOMA EXAMINATION, (C–16)

SEPTEMBER/OCTOBER - 2020

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. Explain the steps involved in executing a C program.

2. Write the character set of C program language.

3. Write the importance of printf( ) function in C program.

4. Write the syntax of switch statement.

5. Differentiate between while and do-while loop.

6. In what way an array is different from an ordinary variable?

7. State the use of strlen( ) and strcpy( ).

8. What are the formal and actual arguments?

9. List any three advantages of pointers in C.

10. Write about the concept of closing a file and closing all files.

PART—B 10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. *(a)* Define an expression and show how to evaluate an expression with example. 5

(b) Define function. Write the uses of function. 5

12. Explain nested if-else statement in C with suitable program. 10

13. *(a)* Explain break, continue statements. 4

(b) Write a C program to print the following pattern : 6

1
1 2
1 2 3
1 2 3 4
: : : : up to *n*

14. What is an array? How to declare and initialize 1D-array and 2D-array? 2+2+2+2+2=10

15. What are the four storage classes in C? Explain with example. 10

16. Explain how pointers can be used to access array elements with suitable example program. 10

17. Explain how to find the size of structure and size of union with an example. 10

18. Explain any five pre-processor directives with examples. 10

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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. List the steps involved in executing the 'C' program.

2. Define a keyword. List any six keywords in 'C'.

3. Write the syntax of printf( ) function and purpose of it.

4. Write syntax of simple if statement.

5. Define a loop. List the loop statements available in 'C'

6. How to declare and initialize a two dimensional array?

7. Write a program to read and print a string.

8. Classify the functions based on arguments and return type.

9. Define a pointer. How to declare and initialize a pointer?

10. Define a file. List any 3 file handling functions.

PART—B

10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. *(a)* Write a program to find the smallest number in given two numbers using ternary operator (Conditional Operator).

(b) Write short note on different storage classes of variables.

12. Explain switch statement with an example program.

13. Write a program to find the largest of *N* given number using do-while loop.

14. Write a program to add two 2-dimensional matrices.

15. Write a program to find the factorial of a given numbers using recursion.

16. Explain how to pass pointer as a function argument with example.

17. *(a)* What is a self-referential structure? Give an example.

(b) Write the differences between structures and unions.

18. Write a program to create and display text file.

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