C14–CM–106/IT–**106**

4032

BOARD DIPLOMA EXAMINATION, (C–14)

OCT/NOV—2016

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 structure of C program. 3

2. List the rules to form identifiers in C with examples. 3

3. What is the purpose of printf( )? Write its syntax. 3

4. Write about conditional operator in C with example. 3

5. Write a short note on 'continue' statement. 3

6. If an array is declared as int a[2][3] { 0, 1, 2, 3, 4, 5}; then what are the values of a[0][2], a[1][1], a[1][2]? 1+1+1

7. Write the declaration of a user-defined function to return sum of three floating point values. 3

8. List the string input and output functions.   1½+1½

9. Write about malloc() and free() functions.   1½+1½

10. Explain the function feseek() with an example.   3

PART—B   10×5=50

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

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

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

11. *(a)* Explain precedence and associativity of various operators in C.   5

     (b) Discuss the scope, visibility and lifetime of variables in functions.   5

12. *(a)* Write a C function to read a character and check whether it is an alphabet, digit, white space (or) special symbol.   5

     (b) Explain the switch statement with syntax and flowchart.   5

13. *(a)* Explain about nested loops in C with an example.   5

     (b) Write a C program to generate Fibonacci series of *n* numbers.   5

14. *(a)* Define array. List two ways to initialize one-dimensional array.   5

     (b) Write a C program to find the largest of *n* numbers, stored in an array.   5

15. *(a)* Define function. Explain about functions with example.   6

     (b) What is recursion? Write a recursive function to find x^y (*x* power *y*).   4

16. *(a)* Explain how to pass pointers as function arguments with an example. 6

(b) Write the difference between call-by value and call-by reference. 4

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

(b) Define union. How to declare access the members of union with an example? 5

18. *(a)* Explain file input-output functions with examples. 5

(b) Write a C program to display command line arguments. 5

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