C16–CM/IT–**106**

# 6026

**BOARD DIPLOMA EXAMINATION, (C–16)**

**MARCH/APRIL—2018**

**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.** List any three steps involved in C program execution.

**2.** Define an identifier and mention the rules to form it.

**3.** Differentiate between scanf( ) and printf( ).

**4.** Write the syntax of if-else statement.

**5.** Write the syntax of exit controlled loop with an example.

**6.** Define an array. Give the syntax to declare an array of size 10 and array name : X.

**7.** List any three string handling functions.

**8.** List any three storage classes available in C.

**9.** State the purpose of malloc( ) and realloc( ) functions in C.

**10.** Write how to create your own user defined data types in C.

## 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.** Write a C program to print the 'Grade' of the student. Read 6 subject marks from the keyboard. Each subject carries 100 marks (total = 600). 10

Grade calculations :

| | |
|---|---|
| Percentage>=70 | Grade–Distinction |
| Percentage>=60&&percentage<70 | Grade–First |
| Percentage>=50&&percentage<60 | Grade–Second |
| Percentage>=40&&percentage<50 | Grade–Pass |
| Percentage<40 | Grade–Fail |

**12.** *(a)* Explain nested for loop. 3

*(b)* Write a C program to print 7th table using nested for loop. 7

**13.** Write a C program to find the biggest and smallest among N numbers using arrays. 10

**14.** Write a C program to find the factorial of a given number using Recursive function. 10

**15.** *(a)* Explain about precedence and associativity of operators.    5

*(b)* Explain about scope and lifetime of variables.    5

**16.** Write a C program to exchange the contents of two variables, using call-by-reference parameter passing technique.    10

**17.** *(a)* Write the differences between structure and union.    5

*(b)* Explain about array and structures in C.    5

**18.** *(a)* What is a preprocessor? Explain #include and #define directives.    5

*(b)* Explain any five file handling functions in C.    5

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