C16–CM–106/C16–IT–**106**

6026

BOARD DIPLOMA EXAMINATION, (C–16)
OCT/NOV—2017
DCME—FIRST SEMESTER 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 features of C language.

2. List various types of C tokens.

3. List the logical operation and name them.

4. Give the syntax of GOTO statement and list any two disadvantages of it.

5. Write the syntax of an entry-controlled loop with an example.

6. Define an array. In the given example, find out the value of $a[2]$:

int $a[3]$ {14, 16, 20};

7. What is the purpose of gets( ), function? Write the syntax.

8. Define a recursive function and state the need of it.

9. What is the purpose of a NULL pointer?

10. Define self-referential structure and its purpose.

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PART—B 10×5=50

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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)* Compare if-else-if ladder statement with switch statement.   5

     (b) Write a C program to find the average of biggest and smallest of two numbers using ternary operator.   5

12. *(a)* Explain do-while loop.   3

     (b) Write a C program to check whether the given number *n* is palindrome or not by using while (read *n* value through keyboard).   7

13. Write a C program to perform the multiplication of 2 2 matrices.   10

14. *(a)* Define a function and briefly explain different types of user-defined functions.   5

     (b) Write a C program to calculate the sum of the digits of a given number using function.   5

15. *(a)* Explain about various assignment operators.   5

     (b) Differentiate between an ordinary function and a recursive function.   5

16. Write a C program to exchange the contents of two variables without using temporary variable and by using call by value concept. 10

17. *(a)* Explain nested structures in brief. 5

(b) Write a C program to create a node which consist of student basic details like name, pin-no., phone no., branch and address, and print it. 5

18. Write a C program to create and display the contents of text file. 10

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