



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.

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) 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
