



C20-EE-306

7250

BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—2023

DEEE – THIRD 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. Define the terms constant and variable.
2. What is the purpose of scanf() statement and write its syntax.
3. Differentiate between 'break' and 'continue' statement in any three aspects.
4. List different iterative loop statements in C.
5. Define 1-D array and list the two ways to initialize it.
6. Write the syntax to declare a string variable with an example.
7. State the need for user-defined functions.
8. List any three storage classes available in C.
9. Define a structure and give an example to it.
10. What do you mean by 'call by reference' and 'call by value'?

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **eight** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 11.** (a) Write a C program to swap the values of two variables without using third variable.

(OR)

- (b) Explain different arithmetic operators in C with their precedence and write an example program.

- 12.** (a) Explain the working of if-else statement with an example program.

(OR)

- (b) Write a C program to print the lowercase alphabets using while loop.

- 13.** (a) Write a C program to declare, initialize an array with 10 elements and to print the biggest number among them.

(OR)

- (b) Write a C program to find the length of the string after addition of two strings.

- 14.** (a) Write a C program using functions to print a multiplication table of a given number.

(OR)

- (b) Write a C program using local and external variables.

- 15.** (a) Explain how to find the size of a structure. Illustrate with an example program.

(OR)

- (b) Write a C program to interchange the elements of a character array using pointers.

PART—C

10×1=10

- Instructions :**
- (1) Answer the following question.
 - (2) The question carries **ten** marks.
 - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 16.** Is it possible to write a loop statement that will show the following output?
If yes, write a C program to print the output pattern shown below. If not, give the reasons to justify your answer.

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

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