

## NETTUR TECHNICAL TRAINING FOUNDATION DIPLOMA IN MECHATRONICS ENGINEERING & SMART FACTORY-CP15 III SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

PART B

Subject: Computer Programming-C,C++ Subject Code: CP15303T Total Time: 2 Hr. Total Marks: 50 Marks

# 1.0 ANSWER ANY EIGHT OF THE FOLLOWING

2\*8=16

- 1.1 What are the basic elements, a programming language must have?
- 1.2 List the six types of 'C' tokens
- 1.3 List the basic datatypes in C
- 1.4 What do the following special operators do in C?
- a. Sizeof(); b. & operator c. \* operator
- 1.5 What are the decision making statements in C?
- 1.6 Explain the concept of String.
- 1.7 Define Preprocessing
- 1.8 What is structure? How it differs from array?
- 1.9 What is Operator overloading?
- 1.10 List the access specifiers in C++

### 2.0 ANSWER ANY SIX OF THE FOLLOWING

- 2.1 Write down the rules for naming an identifier. Write any 4 valid identifiers.
- 2.2 Explain, how interpreters differ from compilers?
- 2.3 List the various Storage Classes in C. Explain any one of them in brief.
- 2.4 Explain the following OOPs concepts with example
  - 1) Polymorphism 2) Dynamic Binding 3) Message Passing

2.5 Why do we call scanf() and printf() statements as formatted input and output functions? Explain with example.

- 2.6 Explain if else statement with the help of an example.
- 2.7 Differentiate Global & Local Variables.
- 2.8 Write a C Program to check whether the given string is palindrome or not

### 3.0 ANSWER ANY FOUR OF THE FOLLOWING

- 3.1 Explain switch statement with the help of an example.
- 3.2 Explain the structure of 'C' program with the help of an example.

3.3 Explain the difference between ++x and x++. Given k = 10, write the values stored in z.

- a. z = k++; b. z = ++k;
- c. z = k -; d. z = -k;
- 3.4 Differentiate while & do-while statements in C

3.5 Write an executable c program using the 'for' loop to calculate sum of all numbers from 1 to 100.

3.6 How will you declare and initialize a single dimensional array? Explain

#### 4\*4=16

3\*6=18

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