

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN COMPUTER ENGINEERING & IT INFRASTRUCTURE – CP08
I SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

Subject: Problem Solving Techniques
Subject Code: CP08104T

Total Time: 2 Hr.
Total Marks: 50 Marks

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING **2*8=16**

- 1.1 What is an algorithm?
- 1.2 What are the three basic building blocks to use when designing algorithms?
- 1.3 What is a Flowchart?
- 1.4 What is iteration?
- 1.5 What is more important than performance?
- 1.6 List the most fundamental types of algorithms.
- 1.7 Write the four basic steps in solving a problem
- 1.8 What is the purpose of pattern recognition?
- 1.9 What are the two factors of Algorithm Complexity?
- 1.10 What are the types of abstraction?

2.0 ANSWER ANY SIX OF THE FOLLOWING **3*6=18**

- 2.1 How to Analyse an Algorithm
- 2.2 Write an algorithm to find the smallest number between two numbers
- 2.3 Why is sequencing important?
- 2.4 Write an algorithm to reverse a string
- 2.5 Draw the flowchart for if else statement
- 2.6 How to write a Pseudo Code?
- 2.7 What is mean by repetition structure? Explain with example.
- 2.8 Write the difference between computer hardware and software

3.0 ANSWER ANY FOUR OF THE FOLLOWING **4*4=16**

- 3.1 Write the characteristics of an algorithm
- 3.2 Write the algorithm and draw the flow chart to convert temperature from Fahrenheit (°F) to Celsius (°C)
- 3.3 Write the method for developing an algorithm.
- 3.4 Explain the characteristics of Computational Thinking
- 3.5 Write a Pseudo-code to add two numbers
- 3.6 List out the symbols used in flowcharts

