

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN ELECTRICAL & ELECTRONICS – CP23
IV SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JULY 2023

Subject: Programmable Logic Controller
Subject Code: CP23406T

Time: 2 Hr.
Marks: 50

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING

2*8=16

- 1.1 Define PLC and its role in automation.
- 1.2 Write any 4 digital input device names.
- 1.3 Draw the block format of timer and label it.
- 1.4 List the various types of comparison functions in PLC
- 1.5 What is Skip Function in PLC?
- 1.6 What is BIT SET FUNCTION?
- 1.7 Define Baud rate.
- 1.8 List any 3 applications of SCADA
- 1.9 What is Holding Register?
- 1.10 Define the term Capacitive Proximity sensor with symbol.

2.0 ANSWER ANY SIX OF THE FOLLOWING

3*6=18

- 2.1 List the factors considered while selecting a PLC
- 2.2 Draw the PLC ladder diagram for Motor forward-reverse with mutual interlock
- 2.3 Explain PLC output group register
- 2.4 Explain PLC multiplication function with example
- 2.5 Explain jump instruction with Return.
- 2.6 Explain about SCADA system
- 2.7 Define the term Inductive Proximity sensor with symbol.
- 2.8 Explain Input module with neat sketch.

3.0 ANSWER ANY FOUR OF THE FOLLOWING

4*4=16

- 3.1 Define sourcing and sinking
- 3.2 Differentiate between Retentive and Non-Retentive type timer.
- 3.3 Explain up counter with typical application.
- 3.4 Explain Analog output Module with neat sketch
- 3.5 Write the advantages of an HMI over a PLC
- 3.6 What are the programming formats followed for proper construction of ladder diagram?

