

**NETTUR TECHNICAL TRAINING FOUNDATION**  
**DIPLOMA IN ELECTRICAL & ELECTRONICS ENGINEERING – CP23**  
**V SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023**

**Subject: Applied Control System**  
**Subject Code: CP23505T**

**Total Time: 2 Hr.**  
**Total Marks: 50 Marks**

**PART B**

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

- 1.1 Why do companies use SCADA?
- 1.2 What is the importance of PLC technology in SCADA System?
- 1.3 What is RTU?
- 1.4 What is DDE?
- 1.5 Write a note on Manufacturing Message Specification (MMS).
- 1.6 What are the differences between SCADA and HMI?
- 1.7 What are the different types of HMI?
- 1.9 Write the common uses of HMI
- 1.9 Explain the term "Supervisory Control"
- 1.10 Why would a company want to use a PLC over an RTU?

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

- 2.2 What are the differences between PLC and SCADA?
- 2.2 Write down the 4 types of SCADA hardware
- 2.3 What are some advantages of SCADA over other protocols?
- 2.4 What does SCADA system do?
- 2.5 What are the different components used in automation?
- 2.6 Write down five main SCADA Components
- 2.7 Write down at least five applications of automated power system
- 2.8 Write a short note on GUI communication.

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

- 3.1 Draw the block diagram of a typical RTU hardware structure
- 3.3 Mention at least ten goals of Distribution Automation
- 3.3 What is the relation between RTU and SCADA?
- 3.4 Write short note on Power system automation with its benefits
- 3.5 Draw the schematic module of OSI seven-layer model
- 3.6 Explain the functions of SCADA in Power Distribution system

