

**PLCs & SCADA**  
**5<sup>th</sup> Exam/ECE/4617/Dec'22**  
**(For 2018 batch onwards)**

**Duration: 3Hrs.**

**M. Marks: 75**

**SECTION-A**

**Q1. Do as directed:**

**15x1=15**

- a. PLC stands for \_\_\_\_\_
- b. How many timers are used in PLC?
- c. What is XIC?
- d. What is Watch Dog Timer?
- e. SCADA stands for \_\_\_\_\_
- f. RAM stands for \_\_\_\_\_
- g. DCS stands for \_\_\_\_\_
- h. RTU stands for \_\_\_\_\_
- i. LD stands for \_\_\_\_\_
- j. What is OTE?
- k. CPU stands for \_\_\_\_\_
- l. PROM stands for \_\_\_\_\_
- m. LIM stands for \_\_\_\_\_
- n. PLC scan cycle divide into \_\_\_\_\_ steps.
- o. Write any one bit instruction.

**SECTION-B**

**Q2. Attempt any six questions.**

**6x5=30**

- i. Explain the memory organization of PLC.
- ii. What is counter? How many counters are used in PLC?
- iii. Explain all Comparison instructions.
- iv. Explain in detail watch dog timer.
- v. What are the advantages of PLC over Relays?
- vi. Explain PLC operation in detail.
- vii. Explain DCS in detail.
- viii. Explain any two input instructions.

**SECTION-C**

**Q3. Attempt any three questions.**

**3x10=30**

- a. What is SCADA? Explain the block diagram of SCADA.
- b. Explain PLC architecture in detail.
- c. What is timer? Explain all timer instructions
- d. Explain all bit instructions in detail.
- e. Difference between DCS and SCADA.