

S. B. Roll. No.....

PLCs AND SCADA
5th Exam/ECE/4617/Jun'2021
(For 2018 Batch onwards)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- a. List the advantages of PLCs over relays?
- b. Explain the memory structure of a PLC.
- c. Define SCADA and list down its advantages.
- d. Explain the difference between PLC and DCS.
- e. What do you understand by scan cycle of PLC? Explain all the stages of scan cycle.
- f. Implement the equation $(A.B + C). (D+E)$ using ladder diagram.
- g. Explain the differences between DSC and SCADA.

SECTION-B

Q2. Attempt any one question.

1x10=10

- i. Explain the block diagram of a PLC system.
- ii. What are the different types of programming languages used in PLCs? Explain them in brief.
- iii. Define DCS. Explain various components of a DCS system and write down main advantages of a DCS system.
- iv. What is SCADA? Describe various components of SCADA in detail.