

Total No. of Questions : 4]

SEAT No. :

PE212

[6580]-572

[Total No. of Pages : 1

B.E. (Electrical Engineering) (Insem)

PLC AND SCADA

(2019 Pattern) (Semester - VII) (403143 A) (Elective - III)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Solve Q.1 or Q.2, Q.3 or Q.4.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Assume suitable additional data, if necessary.
- 5) Use of non-programmable calculator is allowed.

Q1) a) Describe Overall PLC system explaining the functions of each block in detail. **[7]**

b) State and explain advantages and disadvantages of PLC. **[8]**

OR

Q2) a) State and explain the selection criteria for PLC and List any four manufacturers of PLC. **[7]**

b) Explain Input and Output module of PLC. **[8]**

Q3) a) Enlist different types of discrete input and output devices. What are actuators? Explain them in details. **[7]**

b) Explain the following two different types of Encoders along with its diagram. **[8]**

i) Incremental Encoder

ii) Absolute Encoder

OR

Q4) a) Explain inductive and capacitive proximity sensors in detail with diagram. **[7]**

b) Enlist different types of temperature sensors? Explain any one along with its construction, working principle, merits and demerits. **[8]**

