P8500

Oct-22/BE/Insem-94

B.E. (Electronics and Telecommunication)

PLC, SCADA AND AUTOMATION

(2019 Pattern) (Semester - VII) (404184B) (Elective-III)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

1) *Attempt Q.1 or Q.2, Q.3 or Q.4.*

2) *Neat diagrams must be drawn wherever necessary.*

3) *Figures to the right side indicate full marks.*

4) *Assume suitable data, if necessary.*

Q1) a) Explain an Architecture of Industrial Automation Systems (Automation Pyramid). **[5]**

b) Explain the energy conservation schemes through VFD? **[5]**

c) Define the term 'Transmitter'. What is the need of it? **[5]**

OR

Q2) a) Write on Advantages and limitations of Automation. **[5]**

b) Define the following terms with example. **[5]**

   i) Controlled variable

   ii) Controlling variable

c) Compare 2-wire. 3-wire transmitter. **[5]**

Q3) a) Draw and explain the Architecture of PLC. **[5]**

b) Explain in brief Sensors Sinking and Sourcing. **[5]**

c) Write on need of PLC? **[5]**

OR

Q4) a) Explain different Types of PLC's? **[5]**

b) Compare PLC & PC? **[5]**

c) Explain Analog and Digital I/O addressing of PLC? **[5]**

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