

Roll No.

24438

B. Tech. (EEE) 7th Semester (Re-appear)

Examination – October, 2020

PLCS AND SCADA

Paper : EE-407-F

Time : 1.45 Hours] [Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any **three** questions. All questions carry equal marks.

1. (a) Explain the functions of generating station control room.
- (b) Explain M. T. U. Communication Interface.
- (c) Explain SCADA Communication in an electrical power system
- (d) What are the major difference between RTU and PLC ?

2. Explain the block Diagram of SCADA system in detail.
3. Draw and explain the block Diagram of RTU. Discuss the benefit of PLCs.
4. (a) Explain with example that how SCADA System is used in conventional electric power generation.
(b) Discuss role of SCADA in Power System in General.
5. Discuss the need of SCADA System in Power System Planning, Operation and Accounting.
6. (a) What do you mean by sub-station automation ? Explain in detail with a suitable block Diagram.
(b) What is DMS ? Explain in detail with a suitable block Diagram.
7. Draw the Layout of a substation. Also explain the construction and commissioning of substation.
8. Explain customer level intelligent automation system and feeder level automation.
9. Discuss the Phenomenon's of automatic mapping and facility management in detail.
