

Printed Pages : 2



EEE062

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 120853

Roll No.

--	--	--	--	--	--	--	--	--	--

B. Tech.

(SEM. VIII) THEORY EXAMINATION, 2014-15
SCADA & ENERGY MANAGEMENT SYSTEM

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions.

- 1 Attempt any two parts of the following : $10 \times 2 = 20$
 - (a) Describe architecture of a typical distribution SCADA and state the automatic functions performed by distribution SCADA.
 - (b) Describe in detail, the principle and working of power-line carrier communication.
 - (c) What are various equipments used for various tasks in network automation and distribution automation.

- 2 Attempt any two parts of the following : $10 \times 2 = 20$
 - (a) What is meant by 'Data acquisition system' ? Discuss the functions performed by the Data Loggers.
 - (b) Discuss in detail, the functions of 'Remote Terminals Units (RTUs) in a typical modern supervisory control system.

- (c) Discuss the concept of 'Partial Load Control' from Distribution Control centre.
- 3 Attempt any two parts of the following : $10 \times 2 = 20$
- (a) Discuss the concept of 'Load Management' and clearly state its objectives.
- (b) What is meant by 'Load Shedding' ? Discuss the process by which it is carried out.
- (c) What are the functions performed at a centralized energy management centre ?
- 4 Attempt any two parts of the following : $10 \times 2 = 20$
- (a) What are various components of the 'Man-machine communication system' of a sub-station ? Discuss in detail.
- (b) Explain how Auto Reclosers and Sectionalizers are remote controlled from control room of Distribution Substation ?
- (c) Explain peak load problem and its solutions.
- 5 Write short notes on any four of the following : $5 \times 4 = 20$
- (i) Transducers
- (ii) Disturbance data collection and analysis
- (iii) Mimic diagram
- (iv) Economic dispatch
- (v) Power pool management
- (vi) General power system Hierarchical structure.
-