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M. Tech. 2nd Semester (Electrical Power Systems)

Examination, May–2015

REAL TIME CONTROL OF POWER SYSTEM

Paper–MTEPS-203

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt any five questions.

1. Explain the theory of WLS state estimation. Differentiate between sequential and non sequential methods to process measurements. 20
2. Explain the term Bad data detection and Bad data observability. How these are identified and eliminated ? 20
3. What do you mean by security and contingency ? Explain the contingency analysis for generators and line outages by fast decoupled method. 20
4. Discuss and explain the role of computer control in power system. Explain the operating states of a power system. 20
5. Explain the SCADA system and energy control system in Power System. 20

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6. Differentiate between voltage collapse and voltage security. Explain the relation of voltage stability to rotor angle stability. 20
7. Explain the voltage stability analysis with 'P-V' curves. 20
8. What do you mean by short term load forecasting ? Explain the application of AI in power system. 20