



I SEMESTER M.TECH (ENERGY SYSTEMS & MANAGEMENT)

END SEMESTER EXAMINATIONS, NOVEMBER 2017

SUBJECT: ADVANCED ENERGY MANAGEMENT [ELE 5103]

REVISED CREDIT SYSTEM

Time: 3 Hours

Date: 23 November 2017

Max. Marks: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

- 1A. What is energy auditing? How is it different from energy accounting? (05)
- 1B. Give an account of the salient features of the Electricity Act 2003. (05)
- 2A. Enumerate the factors on which electricity tariffs depend on. (05)
- 2B. How do you evaluate a renewable energy project/proposal? (05)
- 3A. What are the objectives of Energy Management System? (05)
- 3B. With block diagram explain various states of power systems (05)
- 4A. Explain economic load dispatch emphasizing the theory behind it, with examples. (05)
- 4B. What are the objectives of SCADA? (05)
- 5A. Explain the architecture for power system automation. (04)
- 5B. For the power system shown in Fig. 5B, find the voltage at bus 2 at the end of Four iterations using Gauss-Siedal method. Also find the line losses and the slack bus real & reactive power generation. (06)

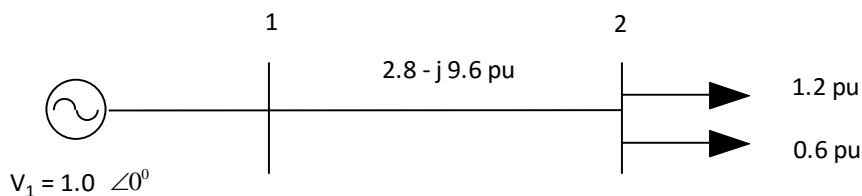


Fig. 5B