

G 6551

Reg. No.....

Name.....

M.TECH. DEGREE EXAMINATION, MARCH 2011

Second Semester

Branch : Electrical and Electronics Engineering

Specialization : Power Electronics and Power Systems

PEPS 203 – POWER SYSTEM OPERATION AND CONTROL

Time : Three Hours

Maximum : 100 Marks

Answer any five questions.

1. ✓ (a) Explain how to find the solution of hydro thermal scheduling.
(b) Explain long term scheduling of hydro plant.
(12 + 8 = 20 marks)
2. ✓ (a) Explain Lambda-Gama iteration method for short-term scheduling of hydro plant.
(b) Explain hydro thermal scheduling using Linear programming.
(12 + 8 = 20 marks)
3. ✓ (a) Explain how to obtain the solution of a least square estimation problem.
(b) Obtain least square estimate of two random variables x_1 and x_2 by using the data for three dimension Vector Y, Assume a suitable 'H' matrix.
(12 + 8 = 20 marks)
4. ✓ (a) Explain how the state estimation problem is done for a non-linear measurement model.
(b) Draw a flow chart for implementing the algorithm of Q.4 (a).
(12 + 8 = 20 marks)
5. ✓ (a) Explain the functions that can be performed by a typical energy control centre.
(b) Draw an overview of Load frequency control.
(12 + 8 = 20 marks)
6. Explain network is landing along with the derivation related to it.
(20 marks)
7. Explain monitoring, evaluation of system state by contingency analysis.
(20 marks)

[5 × 20 = 100 marks]