Roll No. .....

23259

M.Tech. 1st Semester (Electrical Power Systems) Examination– December, 2016

POWER SYSTEM OPERATION AND CONTROL

Paper : MTEPS-103

Time : 3 hours ***Max. 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 the examination.

Note : Attempt any **five** questions.

1. (a) Describe the various thermal unit constraints considered in the UC problem. (10)

(b) Discuss priority list scheme method and unit commitment problem solution by this method. (10)

2. Explain forward dynamic programming approach for solving unit commitment problem with a neat flow-chart. (20)

3. With a neat block diagram, explain the single area load frequency control system. (20)

4. Derive the coordination equations for economic dispatch with and without loss. (20)

5. Derive the mathematical modelling of the line power in a interconnected system and its block diagram. (20)

6. Explain optimal LF control steady state representation. (20)

7. (a) Discuss fuel scheduling by linear programming. (10)

(b) Explain the different methods of voltage control. (10)

8. Write short notes on : (20)

(i) Power pools

(ii) Load forecasting

(iii) Economic Dispatch Control (EDC)

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