

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)

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[Turn Over

2. Explain forward approach for so problem with a neat 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 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 control steady state representation. (20)
7. (a) Discuss fuel scheduling by linear programming. (10)

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- (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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