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Roll No

MTPA - 202**M.E./M.Tech., II Semester**

Examination, December 2015

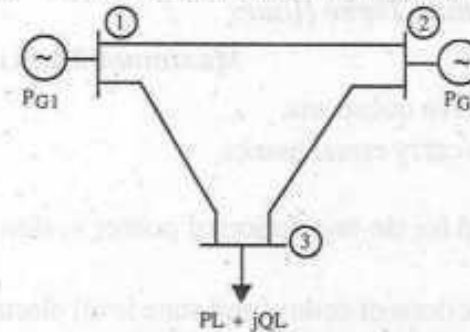
Power System Economics and Trading**Time : Three Hours****Maximum Marks : 70**

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Explain the need for de-regulation of power system and the benefits.
b) What are the functions of central and state level electricity regulatory commission?
2. a) Explain role of marginal cost in power market.
b) What is competition? Explain the efficiency of perfect competition.
3. a) What is the concept of "Day Head Design"? Why it is used for power trading?
b) Give a comparison pool and bilateral trading.
4. a) What do you understand by "Congestion Management"? Describe in detail.
b) What are the three stages of market power? Discuss in detail.
5. a) Describe the basic characteristics of the retail market in the power system of your choice. Are there default tariffs. And any last resource tariff scheme.
b) Write short notes on:
 - i) TOU/TOD charges
 - ii) Demand Forecasting

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6. a) Define the term Risk management and forward market. Explain the significance of each of them.
b) Discuss Short-Run Average Cost Curve (SRAC) and Long-Run Average Cost Curve (LRAC)
7. a) Define screening curve and its use to find the optimal mix of technologies.
b) Consider a sample 3 bus system as shown in Figure.



Bus No	Generation	Load (MW)
1	200	0
2	700	100
3	0	800

Table: Bus data for sample system

From Bus	To Bus	Line Reactance (pu)	Max. Power capacity (MW)
1	2	0.1	600
2	3	0.033	200
3	3	0.1	600

Table: Line data for sample system

Calculate the value of ATC between buses 1, 2 and 3.

8. Write short notes on any two of the following:
 - a) ATC
 - b) Auction
 - c) Testing of market design

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