

2123
M.E. Electrical Engineering (Power System)
First Semester
EE (PS)-8105: Power System Deregulation

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt any five questions.

x-x-x

- I. a) Define deregulation in power system. Explain in detail different types of entities involved in deregulation.
b) Explain the important changes occurred in Indian power market after the restructuring of electricity. (2x5)
- II. a) What is the difference between ISO and TSO as system operators? What are the main objectives of a system operators?
b) Briefly explain the operational activities of GENCO in pool and bilateral markets. (2x5)
- III. Define wheeling in power system and list the main objectives of wheeling? What is meant by power exchange? Also explain the bilateral wheeling transaction. (10)
- IV. Write briefly on the cost components of transmission system. Explain the concept of market clearing price with the help of an example. (10)
- V. What do you mean by congestion management in power system? Explain with an example, its impact on power system. how can it be managed. (10)
- VI. a) What do you mean by transmission reliability margin and capacity benefit margin for transmission system.
b) What is market power and what are its mitigation techniques. (2x5)
- VII. What do you mean by ATC? How is it playing role in deregulated power system? Explain the methods of determining static ATC. (10)
- VIII. How will you differentiate non-market and market based methods of ATC. Explain in detail the methods available to calculate ATC with the help of suitable examples. (10)

x-x-x