

Roll No.

Total No. of Pages : 02

Total No. of Questions : 08

M.Tech. (Power System) (2013 & Onwards) (Sem.-2)
POWER SYSTEM RESTRUCTURING AND DEREGULATION
Subject Code : MTPS-202
Paper ID : [A2514]

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. (a) What is restructuring of power system? How it is different for deregulation? (6)
(b) Define wheeling in power system and list the main objectives of wheeling. (7)
(c) Write a note on private participation in power sector. (7)
2. (a) Differentiate between pool model, pool and bilateral trade model and multilateral trade models of deregulation. (10)
(b) What is the difference between ISO and TSO as system operators? What are the main objectives of a system operator? (10)
3. (a) What are the characteristics of wholesale electricity market? What is Bilateral trading? (7)
(b) Explain single auction and double auction power pool. (7)
(c) Write briefly on Transmission Pricing. (6)
4. (a) What is OASIS? Explain its structure functions and implementation. (12)
(b) What is congestion management in power system? Explain with an example its impact on power system. How can it be managed? (8)
5. (a) Define and explain the terms Total Transfer Capability, Available Transfer Capability, Transmission Reliability Margin, Capacity Benefit Margin and Existing Transmission Commitments. (15)

- (b) How have the ownership and operation separated in restructured power markets? (5)
6. (a) Discuss in detail the importance of distributed generation in today's power scenario. What are the operating conflicts and connection to utility problems of distributed generation? (12)
- (b) Why is distributed generation suitable for low voltage distribution networks? (8)
7. (a) What is transmission open access? How has it impacted the present day power scenario? (7)
- (b) What are transmission reliability margin and capacity benefit margin for transmission system? (7)
- (c) What are the factors which affect siting of distribution energy sources? (6)
8. (a) How can we assess the economic and reliability benefits of pool operation? (10)
- (b) What is market power and what are its mitigation techniques? (10)

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