

**GANPAT UNIVERSITY****M. Tech. Semester: III (Electrical Engineering)****Regular Examination December 2013****Power System Restructuring 3EE303**

Time: As per Scheme

Total Marks: 70

- Instruction:** 1 All Questions are compulsory  
 2 Assume suitable data if required  
 3 Figures to the right indicate full mark of the question

**Section - I**

- Que. - 1 A What is deregulation or restructuring of a power industry? Discuss the reasons for restructuring / deregulation of the power industry. 06  
 B Discuss the salient features of Indian Electricity Act 2003 06  
 OR  
 Que. - 1 A Discuss the provisions of grid code for the commercial settlement of wind energy generation. 06  
 B Discuss the advantages and disadvantages of deregulations in power 06  
 Que. - 2 A What are the types of market models considered to achieve the electricity market goals? Discuss PoolCo market in details. 06  
 B List out the names of companies with their main functions concern with restructuring of power Industry in Gujarat. 05  
 OR  
 Que. - 2 A What is ISO? Discuss the functions of ISO in restructured power systems 06  
 B What is competitive bidding? Explain how the competitive bidding helps in the operation of power system with suitable example 05  
 Que. - 3 A Discuss the operational Planning activities of generation company in Bilateral 06  
 B What is REC in context to restructured power systems? Discuss the main functions of State REC and Central REC. 06

**Section - II**

- Que. - 4 A Discuss the market based and non market based mechanism used for congestion management 1206  
 B What is transmission line loss allocation? Describe any one method of transmission line loss allocation 06  
 OR  
 Que. - 4 A What is Congestion management? Which limiting factors of transmission line are responsible for congestion in power systems? Also explain how length of the line affects this factors 6  
 B What is ATC? Describe the Steps for calculating ATC using flow chart 6  
 Que. - 5 A Explain the type of Ancillary services required by ISO for routine operation of restructured power systems 06  
 B What is point of connection tariff? Explain with suitable example 05  
 OR  
 Que. - 5 A Explain MW Mile method for transmission pricing with suitable example 06  
 B What LMP? Explain how LMP is calculated for transmission pricing with suitable example 05  
 Que. - 6 Write Short notes on  
 1 Reactive power as an ancillary service for restructured operation 06  
 2 Global experience with electricity reforms in leading countries of the world 06

END OF PAPER