

**GANPAT UNIVERSITY**  
**M. TECH SEM- III (ELECTRICAL ENGINEERING)**  
**REGULAR EXAMINATION NOV-DEC 2016**  
**3EE303 : POWER SYSTEM RESTRUCTURING**

MAX. TIME: 3 HRS

MAX. MARKS: 60

**Instructions:** (1) This Question paper has two sections. Attempt each section in separate answer book.  
 (2) Figures on right indicate marks.  
 (3) Be precise and to the point in answering the descriptive questions.

**SECTION: I**

- Que.-1** (A) Illustrate the provisions in grid code for the commercial settlement of wind energy generation. [05]  
 (B) Elaborate Kirstin's cost allocation method of transmission network [05]

**OR**

- Que.-1** (A) What do you mean by congestion? Discuss the various transmission line limits. [05]  
 (B) Explain the salient features of Indian Electricity Act 2003. [05]  
**Que.-2** (A) What do you mean by embedded cost? Write a short note on Postage Stamp method. [05]  
 (B) Define ATC and explain the method for ATC calculation by considering PTDF with appropriate example. [05]

**OR**

- Que.-2** (A) Discuss MW-mile method of transmission pricing by using appropriate example [05]  
 (B) Illustrate the steps for Bialek tracing method by appropriate examples. [05]

- Que.-3** **Attempt any Two:** [10]  
 (A) Identify all entities with respect to unbundling of deregulated electricity markets.  
 (B) What is the current situation of deregulation in developing countries?  
 (C) Explain the after effects of deregulation.

**SECTION-II**

- Que.-4** (A) What do you mean by bilateral market? Clarify the role of ISO in Bilateral market. [05]  
 (B) Elaborate the main points on which PoolCo model differs from Bilateral model. [05]

**OR**

- Que.-4** (A) Which are the general activities performed by ISO. [05]  
 (B) Discuss the operational planning activities of GENCO in Pool market. [05]  
**Que.-5** (A) Explain the concept of black start capability service and reactive power & voltage control service as ancillary services. [05]  
 (B) How are the ancillary services provided by NGC in UK? Explain some of them. [05]

**OR**

- Que.-5** (A) Compare an ancillary service management with respect to Sweden and US. [05]  
 (B) Write down a short note on simultaneous approach of forward ancillary services auction. [05]

- Que.-6** **Attempt any Two:** [10]  
 (A) Write down a short note on market participation issues.  
 (B) Discuss on deregulation and current scenario after deregulation in Australia and New Zealand.  
 (C) Write down a short note on reactive power management by New York ISO.

**END OF PAPER**