

Government College Of Engineering, Aurangabad
(An Autonomous Institute Of Government of Maharashtra)

ME (EPS) PT Rev Examination

End Semester Examination

EE556: Power System Dynamics & Stability.

Time: Three Hours

1.9 NOV 2016

Max. Marks: 60

"Verify the course code and check whether you have got the correct question paper"

N.B:-

- 1. All questions are compulsory*
- 2. Each question carries equal marks.*
- 3. Assume suitable data if necessary & state it clearly*
- 4. Use of non programmable calculator is allowed*

Q.1. Solve any Two

- A. Explain the complete classification of power system stability.**
- B. Explain determination of synchronous machine parameters from manufacture's data.**
- C. Explain classical model of single machine infinite bus system in detail**

Q.2. Solve any Two

- A. What is the physical significance of swing equation?**
- B. Explain the equal area criterion with its two applications for single machine infinite bus system with the help of power angle curves.**
- C. Explain Euler method for transient stability analysis**

Q.3. Solve any Two

- A. Explain small signal stability of single machine infinite bus system**
- B. Explain the concept of state and draw the block diagram of the state-space representation.**
- C. What are the different types of problems to be considered under small signal stability**

Q4. Solve any Two

- A. Explain the measures for prevention of voltage collapse.**
- B. Explain the concept of power system voltage stability and give definition of voltage stability.**
- C. Explain the methods of improving transient stability.**

Q5. Solve any Two

- A. Explain the role of power system stabilizer in stability enhancement?**
- B. Explain the stability enhancement with SVC for a simple two-area system**
- C. Explain the exciter voltage build-up**