Code: EE8T3A

IV B.Tech - II Semester – Regular Examinations – April 2016

POWER SYSTEMS DYNAMICS AND STABILITY
(ELECTRICAL & ELECTRONICS ENGINEERING)

Duration: 3 hours   Max. Marks: 70

Answer any FIVE questions.   All questions carry equal marks

1. Find the inductances of synchronous machine and draw the equivalent circuit.   14 M

2. Explain the Dynamic Stability of a synchronous machine for large disturbances.   14 M

3. Represent the state space model of Synchronous machines connected to infinite bus.   14 M

4. Derive the swing equation and explain the transient stability.   14 M

5. Explain the transient stability of a multimachine system under any one fault condition.   14 M

6. Explain effect of saturation and saliency on power system stability.   14 M

7. Explain a typical excitation control scheme and indirect acting rheostatic voltage regulator with neat diagrams.

14 M

8. Draw the static excitation scheme using SCRs and explain its control method.

14 M