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Roll No

EE-6004-CBGS

B.E. VI Semester

Examination, June 2020

Choice Based Grading System (CBGS)

Power System - II

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain the problems associated with modern interconnected power system.
b) Specify the following.
 - i) ATC
 - ii) Congestion management
 - iii) Deregulation
2. a) What is Distributed Generation? Explain utility and customer benefits of using distributed generation.
b) Enumerate the need for restructuring of power systems and its significance.
3. a) What is Load flow analysis? Give its significance in power system.
b) With neat flow chart explain the computational procedure for load flow solution using Gauss Seidel method when the system contains all types of buses.

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4.
 - a) Derive the necessary condition for economic operation of n plants considering transmission losses.
 - b) Classify various types of buses in a power system for load flow studies.
5.
 - a) What is Single area system? Deduce dynamic models for a single area system show full block diagram.
 - b) Two turbo alternators rated for 110MW and 210MW have generator drop characteristics of 5 percent from no load to full load. They are connected in parallel to share a load of 250MW. Determine the load shared by each machine assuming free governor action.
6.
 - a) Discuss in detail about generation and absorption of reactive power in power system components.
 - b) Explain reason for variations of voltages in power system. Suggest any method for voltage profile improvement.
7.
 - a) Derive Swing equation. Discuss its application.
 - b) Discuss the methods for improving transient stability.
8. Explain the following. (any two)
 - a) Emission dispatch
 - b) Static VAR systems
 - c) Solution of swing equation using step by step method
 - d) Equal area criterion

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