Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

EE-6004-CBGS

B.E. VI Semester

Examination, December 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) What do you understand by Power system restructuring processes? Describe various entities involved in restructuring? 7

   b) Explain the necessity of interconnected power system? Also explain the problems associated with them. 7

2. Explain Newton Raphson method for Load flow solution. 14

3. a) Compare different types of load flow studies? 7

   b) What are the advantages over Y_{Bus} over Z_{Bus}? 7

4. a) Explain what are the reasons for keeping strict limit on the system frequency variations. 7

   b) Discuss the methods applied to the load frequency control 7

5. Two generators rated 200 mw and 400 mw are operating in parallel. The droop characteristics of their governors are 4% and 5% respectively from no load to full load. Assuming that there generators are operating at 50Hz at no load how would a load of 600mw be shared between them? What will be the system frequency at this load? Assume free governor operations. 14

6. a) Discuss in detail about generation and absorption of reactive power in power system components. 7
   b) Explain reason for variations of voltages in power system. Suggest any method for voltage profile improvement. 7

7. a) Derive Swing equation. Discuss its application. 7
   b) Discuss the methods for improving transient stability. 7

8. Write short notes (any two) 7×2
   a) Economic dispatch control
   b) Voltage regulators
   c) De-regulation
   d) Series and Shunt Compensation

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