Roll No .....

EX-6002 (CBGS)

B.E. VI Semester

Examination, May 2019

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 is deregulations in power system? Explain its effect and how it can be over come. 7

   b) Why the inter connected power system is necessary? Explain the problems associated with them. 7

2. a) Explain Gauss Seidel method for local flow studies. 7

   b) Form Y_{bus} for the 4-bus system if the line series impedances are as follows 7

Line (bus to bus)	Impedance (p.u.)
1-2	0.25+j1.0
1-3	0.20+j0.8
1-4	0.30+j1.2
2-3	0.20+j0.8
3-4	0.15+j0.6

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

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

4. a) Explain the load frequency by its block diagram. 7

   b) Explain the ill effects of frequency variation in power system. 7

5. a) Describe how series and shunt capacitors can minimise the voltage drop in the line? 7

   b) Explain why voltage variation is occur in power system and why is voltage control required in power system. 7

6. a) Derive the swing equation of a synchronous machine. 7

   b) What is equal criteria? Explain. 7

7. a) Explain with the help of block diagram automatic voltage regulator of turbo generators. 7

   b) What is the need of the excitation system? Explain A.C. static excitation system. 7

8. Write short notes (any two) 2×7=14

   a) Economic dispatch

   b) Pricing of energy

   c) Excitation systems

   d) Variations of voltages in power system.

******