BE-sem-VII-old- Electrical

PSOC

14/12/15

Q.P. Code : **2227**

(3 Hours) [Total Marks : 100

N.B. : (1) Question No. **1** is **compulsory**.
(2) Answer any **four** from questions Nos. **2** to **7**.
(3) Answer to questions should be grouped and written together.

1. (a) Discuss the concept of DC load flow 5
   (b) What are Bmn coefficients 5
   (c) What are various types of stability studies 5
   (d) What is Power Pool 5

2. (a) Discuss the Gauss Seidel method for load flow studies. 10
   (b) What are various assumption in decoupled and fast decoupled load flow study. 10

3. (a) Derive the exact coordinate equation. 10
   (b) What are the various reliability considerations 10

4. (a) Discuss the working of thermal governing system. 10
   (b) Discuss the dynamic response of two area load frequency control. 10

5. (a) Discuss the other type of transactions in interchange of power and energy. 10
   (b) Discuss the application of equal area criterion for sudden change in mechanical input. 10

6. (a) Discuss the contingency analysis. 10
   (b) The data for system is as given in the table below. Draw a figure showing the bus arrangement and line connections and compute theY bus matrix for the system. 10

Line Bus to Bus	1-2	2-3	3-4	1-4
R(pu)	0.025	0.02	0.05	0.04
X(pu)	0.1	0.08	0.20	0.16

7. (a) Two generated 200 and 400 MW are operating in parallel. The droopcharacteristics of their governors are 4% and 5% respectively from no load to full load. Assuming those generators are operating at 50 Hz at no load, how a load of 300 would MW is shared between two units. Assume the free governoraction. 10
   (b) Discuss the numerical solution of swing equation. 10

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