

T.E. Electrical VI CBGS

19.11.15

Q.P. Code : 6257

(3 Hours)

[Total Marks :80

- N.B. :
- (1) Question No.1 is compulsory
 - (2) Solve any three questions out of remaining
 - (3) Assume the suitable data if required and specify the same

1. Solve the following questions
 - (a) Discuss the term maximum power transfer capability of a line 5
 - (b) Discuss the corona QV diagram 5
 - (c) What the role of tower footing resistance 5
 - (d) Discuss the term transient. 5

2. (a) Discuss the short circuit of synchronous machine at loaded condition. 10
- (b) Discusses the transients on transmission line 10

3. (a) Derive the equation for fault current for LLG fault 10
- (b) Discuss the sequence network of transformer 10

4. (a) Discuss the phenomenon of arcing ground. 10
- (b) Discuss the reflection and refraction of voltage and current wave on an short circuit transmission line 10

5. (a) Discuss the surge protection of rotating machines and transformer. 10
- (b) Discuss the advantages and disadvantages of corona 10

6. (a) Discuss the effect of length and power factor on performance of line 10
- (b) A surge of 100 KV traveling on the line of natural impedance 600 ohm arrives at a junction with two lines of impedances 800 ohm and 200 ohm respectively. Find the surge voltage and the current transmitted into each branch of line. 10

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