

TE - sem-VI - CBGS - EE

PSA

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

MD-Con. 7326-15.