

T. E. sem - I (old) Electrical - PSA
Power System Analysis

3/12/16

Q.P. Code : 583000

extra

(3Hours)

[Total Marks : 100

N.B. : (1) Question No 1 is **Compulsory**(2) Solve any **Four** Questions out of remaining

(3) Assume the suitable data if required and specify the same

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| 1. Answer the following questions | 20 |
| (a) What is the difference between no-load and loaded condition, short circuit in synchronous machine? | |
| (b) What are the properties of corona pulses? | |
| (c) What are the various sources of absorption of reactive power? | |
| (d) How rotating machines are protected from surges ? | |
| 2. (a) Discuss the selection of circuit breaker | 10 |
| (b) Discuss the various Z bus formation techniques. | 10 |
| 3. (a) Discuss the sequence network for synchronous machines | 10 |
| (b) Discuss the Bus impedance matrix method for analysis of faults | 10 |
| 4. (a) Discuss the various measures to remove over voltages | 10 |
| (b) Discuss the insulator flash over and withstand voltage | 10 |
| 5. (a) Discuss any one type of lightning arrester | 10 |
| (b) Discuss the corona QV diagram. | 10 |
| 6. (a) Discuss the terms attenuation, radio interference, television interference and corona ring. | 10 |
| (b) What are the various gradient factors? Discuss its application. | 10 |
| 7. (a) Discuss the Mangoldt formula. | 10 |
| (b) Discuss real and reactive power contours. | 10 |

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