Q.P. Code :13099

(3 Hours) **Total Marks – 80**

N.B.:- (1) Question No.**1** is compulsory.
(2) **Attempt** any **three** questions out of remaining **five** questions.
(3) Draw neat diagrams wherever it is necessary.

Q 1. Answer the following questions. **20**

A) Explain the terms symmetrical and unsymmetrical faults.

B)Discuss radio interference due to corona.

C)Explain volt-time curve.

D) Explain surge impedance loading.

Q 2 a) Discuss the formation of transients on transmission line. **10**

Q 2 b) Explain how Bewley Lattice diagram to be drawn. Discuss its use. **10**

Q 3 a) Discuss Z_{BUS} formation technique. **10**

Q 3 b) The line current in amperes in phases a, b, c respectively are (400+j100), (100-j500), (-350+j600). Determine the symmetrical components of current. **10**

Q 4 a) Discuss the various factors to be considered while constructing the sequence network of power system. **10**

Q 4 b) What is arcing grounds? On which system does it occur? **10**

Q 5 a) Discuss the zero sequence network of transformers. **10**

Q 5 b) Discuss the effect of load power and length on reactive power requirement of a line. **10**

Q 6 a) Describe the phenomenon of corona. Discuss the factors which affects corona loss. **10**

Q 6 b) Explain surge impedance loading and natural loading. **10**

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