

Roll No.

23261

**M.Tech (Electronics Engg.)
Specialization: Electrical Power
System Ist Semester
Examination- January, 2013**

**Electrical Distribution Systems (Elective-I)
Paper MTEPS-105**

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt any **five** questions. All questions carry equal marks.

1. (a) Explain the relationship between the load factor and loss factor.

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(1)

[Turn Over

(b) Write short note on :

(i) Load factor

(ii) Utilization factor

(iii) demand factor

2. Explain for design consideration of distribution as radial and loop type of primary feeders.

3. (a) What are the factors on which rating of a distribution substation will depend ?

(b) What are the benefits derived through optimal location of substations; explain them ?

4. (a) What are the manual methods of solution for radial ? Explain them.

(b) Derive the derivation for volt-drop and power loss in lines.

5. (a) Explain double-line-to ground fault.

(b) Explain symmetrical fault.

6. (a) Explain SF6 ckt. Breaker.

(b) What are the ckt. Reclosers ? Explain them.

7. (a) What are the effects of shunt capacitors power factor correction ?

(b) Why we need capacitive compensation ?

Explain different type of power capacitors.

8. Explain the procedure to determine the best capacitor location.
