Code: EE7T6A

IV B.Tech - I Semester – Regular/Supplementary Examinations
October - 2018

ELECTRICAL DISTRIBUTION SYSTEMS
(ELECTRICAL & ELECTRONICS ENGINEERING)

Duration: 3 hours   Max. Marks: 70

PART – A

Answer *all* the questions.   All questions carry equal marks

11 x 2 = 22 M

1.

a) Define loss factor of distribution systems.

b) Write the relationship between load and loss factors.

c) List different types of distribution transformers.

d) Define efficiency of distribution transformer.

e) Write differences between radial and ring main systems.

f) Write power loss calculation formula of distribution systems.

g) Write application of shunt capacitors.

h) List different power factor improvement methods.

i) Write function of fuse in distribution systems.

j) Write purpose of recloser in distribution systems.

k) What is uniformly distributed load?

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Summarize factors effecting total cost of the distribution system expansion.   8 M

   b) Discuss distribution system planning with block diagram.   8 M

3. a) Explain one line diagram of typical distribution systems with neat sketch.   8 M

   b) Explain double bus double breaker scheme with neat sketch.   8 M

4. a) Summarize radial type primary feeders with neat sketches.   8 M

   b) Discuss single phase two wire laterals with multi grounded common neutrals.   8 M

5. a) Explain the procedure to determine best capacitor location in Distribution systems.   8 M

   b) What is voltage regulator and explain its operation with neat sketch.   8 M

6. a) Explain in detail about recloser to fuse coordination.   8 M

   b) Write short note on: 8 M
      i) Automatic circuit breaker. ii) Automatic recloser.