

Total No. of Questions : 6]

SEAT No. :

P5384

[Total No. of Pages : 2

T.E./Insem.-629

T.E. (Electrical)

EIMT

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:-

- 1) *Answers Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
- 5) *Assume suitable data, if necessary.*
- 6) *Your answers will be valued as a whole.*

Q1) a) Explain General design consideration of the distribution feeder. **[4]**

- b) A single phase distributor AB has $R = 0.2 \Omega$ and $X = 0.3 \Omega$, at far end B. the voltage V_B is 240V and current 80A at pf 0.8 lag. At mid-point. current is 100A at 0.6 pf lagging w.r.t. to voltage V_A at A. Find Supply voltage and Phase angle between V_A and V_B ? **[6]**

OR

Q2) a) Explain the voltage level of Ring Type Distribution Feeder. **[3]**

- b) Explain the difference between Overhead Transmission line and Underground transmission line based on volume of conductor? **[3]**

c) State and explain the Kelvin's Law? **[4]**

Q3) a) List the types of Bus Bar system? Explain any one. **[4]**

b) Explain the terms : **[6]**

- i) Touch Voltage
- ii) Step Voltage

OR

P.T.O.

Q4) a) Explain with the help of diagram Pipe Earthing. [5]

b) Explain with Diagram Peterson coil Grounding. [5]

Q5) a) Write short notes on following : [6]

i) Polarization Index.

ii) Dielectric absorption test.

b) Explain preventive maintenance of transformer. [4]

OR

Q6) a) Explain use of Thermography in power systems. [4]

b) Explain the factors affecting the life of Insulation. [6]

