

Code No: H4307/R13

M. Tech. II Semester Regular/ Supplementary Examinations, July-2016

ELECTRICAL DISTRIBUTION SYSTEMS

(Common to PE, P & ID, PE & ED, PE & D and EM & D)

Time: 3 Hours

Max. Marks: 60

Answer any FIVE Questions
All Questions Carry Equal Marks

1. a Explain about each block in distribution planning system. 6
b Explain how the electrical loads are classified. 6
2. a Bring out the differences between LVDS and HVDS systems 6
b Explain how the general circuit parameters are useful in analyzing distribution networks 6
3. a Derive the expression for voltage drop and power loss in 3 phase primary lines. 6
b A single phase 50 Hz ac distributor AB 300m long is fed from one end and is loaded as under: 6
 1. 100A at 0.707 pf lag 200m fed from one end A
 2. 200A at 0.8 pf lag 300m fed from one end AThe total resistance and reactance of the distributor is 0.2 ohms and 0.1 ohm per kilometer. Calculate the total voltage drop in the distributor AB.
4. a Explain the procedure for fault calculation of the most common fault. 6
b Discuss about operation of circuit enclosures. 6
5. a Explain the procedure for insulation coordination between enclosure and circuit breaker. 6
b Explain the classification of fuses. 6
6. a Discuss about different types of capacitors. 6
b Explain the differences between fixed and switched type capacitors. 6
7. a What are the various types of voltage control equipment used in distribution system? 6
b How does the capacitor location influence economy? 6
8. a Write short notes on types of distribution feeders. 6
b Write short notes on relationship between the load factor and loss factor. 6
