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Code No: EE1536

GEC-R14

IV B. Tech I Semester Supplementary Examinations, February 2018

ELECTRICAL DISTRIBUTION SYSTEMS

(Electrical and Electronics Engineering)

Time: 3 Hours

Max. Marks: 60

Note: All Questions from **PART-A** are to be answered at one place.
Answer any **FOUR** questions from **PART-B**. All Questions carry equal Marks.

PART-A

6 × 2 = 12M

1. Define load factor & loss factor.
2. What are the different types of primary feeders?
3. What is the relation between square shaped substation service area and hexagonal shaped substation service area if the feeders are thermally limited?
4. Define voltage regulation.
5. What is the purpose of relay in protection?
6. Define switched capacitor and fixed capacitor.

PART-B

4 × 12 = 48M

1. a) Draw the flow chart of present distribution system planning and explain. (6M)
b) Explain the various factors affecting distribution system planning (6M)
2. What are various factors effecting primary feeder's voltage level? Explain them. (12M)
3. a) What are the various factors to be considered while selecting substation site. (6M)
b) How do you analyze a substation service area with 'n' primary feeders? (6M)
4. Write about non - three phase circuits? (12M)
5. a) Discuss the coordination procedure between a fuse and a circuit breaker. (6M)
b) Explain the operation of automatic line sectionalizer. (6M)
6. a) What are the effects of shunt and series capacitors in distribution system? (6M)
b) Explain the function of AVB/AVR with neat sketch. (6M)
