

Roll No.

24141

B. Tech. 4th Semester (EEE)

Examination – May, 2017

TRANSMISSION & DISTRIBUTION

Paper : EE-212-F

Time : Three Hours]

[Maximum Marks : 100

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

Note : All questions carry equal marks. Question No. 1 is **compulsory** & attempt any **one** question from each Section.

1. (a) Explain difference between indoor & outdoor substation by drawing neat sketch.
- (b) Draw & discuss line diagram for Power System.
- (c) Discuss Sag & Stress calculation.
- (d) Explain the significance of medium Transmission lines.

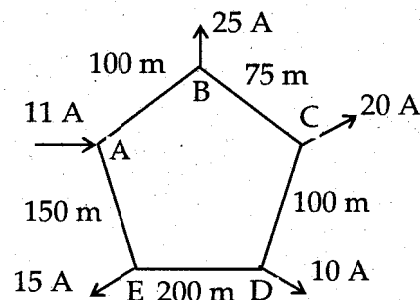
20

SECTION – A

2. (a) Discuss substation auxiliary supply.

(b) Compare various types of AC & DC Systems. 20.

3. Calculate the percentage change in the value of copper required with and without interconnection AC for the same drop between points A & C. Assume all conductors have same cross section. The lengths of the cross sections are as shown in fig. 20



SECTION - B

4. Explain briefly the 'Skin effect' in a transmission line. On what factors does it depend? What is its effect on the resistance of the line. 20
5. Describe effect of load Power factor on Transmission efficiency & voltage regulation of line. 20

SECTION - C

6. (a) What are the various types of line supports? Discuss the suitability of each. 20
- (b) What are disadvantages of providing too much or too small sag in a transmission line.
7. (a) Name the various causes for the failure of overload line insulators. 20
- (b) What is done to protect the string of insulators against over-voltage & lightening? 20

SECTION - D

8. (a) What do you understand by the term grading of cables. Discuss briefly any one method of grading. 20
- (b) Describe an experiment to determine the capacitance of a belted cable.
9. Write technical notes on : 20
- (a) Corona effect
- (b) HVDC Transmission