



**G.S.Mandal's
Marathwada Institute of Technology, Aurangabad.
Department of Electrical Engineering**

Unit -4 Question Bank

Que:1 What are the different classification of Conductors **{2 Marks}**

Que:2: Derive the expression for distribution of voltage across a string of insulator**{5 Marks}**

Que:3 Explain the various methods to improve string efficiency**{5 Marks}**

Que:4 What are the various types of insulators in terms of voltages and applications **{3 Marks}**

Que:5 Explain skin effect? Why it is absent in DC **{5 Marks}**

Que:6 What is Ferranti Effect? Explain with phasors **{5 Marks}**

Que:7 What is proximity effect. Which type of conductors have more skin and proximity effect solid or stranded and Why **{8 Marks}**

Que:8 In a 33kV overheadline, there are three units in the string of insulators. If the capacitance between each insulator pin and earth is 11% of self capacitance of each insulator. Find

i) Distribution of voltage over 3 insulators. ii) String Efficiency. **{8 Marks}**

Que:9 Each line of a three phase system is suspended by a string of 3 similar insulators. If voltage across the line unit is 17.5 kV. Calculate the line to neutral voltage. Assume that shunt capacitance between each insulators and earth is 1/8th of the capacitance of insulator itself. Also find string efficiency?