Code No.: **82420**

MR18-2018-19 Batch

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)

Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

M.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS, NOVEMBER-2019

Subject: **EHV AC TRANSMISSION**

Branch: **EEE/EPS**

Time: 3 hours **Max. Marks: 70**

PART – A

Answer ALL questions of the following **5x4M=20 M**

1. Enumerate the different bundle conductor systems.
2. How are electrostatic field and voltage gradient mutually related?
3. What is electrostatic induction and how does it take place?
4. Explain how corona affects travelling waves.
5. Differentiate between steady state limits and transient limits

PART-B

Answer ALL questions of the following **5x10 M= 50M**

1. Explain the calculation of inductance and capacitance of bundled transmission lines.

OR

2. Explain positive, negative and zero sequence impedances and how they are calculated.
3. Discuss the effect of high electrostatic field on biological organisms and humans.

OR

4. Explain surface voltage gradients and maximum gradients of actual transmission lines.
5. Describe power frequency voltage control and reason for overvoltage.

OR

6. Describe the various types of compensation and their application
7. Describe the reasons for audio noise, its generation, characteristics and limits.

OR

8. Explain methods of measuring audio noise and radio interference.
9. Explain design of EHV lines based on steady state and transient limits

OR

10. Describe the construction of EHV cables and their characteristics?