



TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING & TECHNOLOGY

Wardha Road, Nagpur - 441108

Accredited with NAAC A+ Grade

Approved by AICTE, New Delhi, Govt. of Maharashtra

(An Autonomous Institution Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)



Department of Electrical Engineering (NBA Accredited) Fourth Year (Semester-VIII) B. Tech. Electrical Engineering **BTCHEE803: EHVAC and HVDC Transmission** Assignment No. - II

1.	Describe the difference between primary shock current & secondary shock current. What is the meaning of let go current?	CO2
2.	What is the effect of high electrostatic field on human beings, animal and plants.	CO2
3.	Explain the calculation of electrostatic field of single ckt 3-phase line.	CO2
4.	Find critical disruptive voltage and critical voltages for local and general corona on 3-phase overhead Transmission line, consisting of three stranded copper conductors spaced 2.5m apart at the corner of a equilateral triangle. Air temperature and pressure are 21°C and 73.6mm of Hg respectively The conductor diameter irregularity factor and surface factor are 10.4mm, 0.85, 0.7 and 0.8 respectively.	CO2
5.	A single conductor of 525 KV line having radius of 0.032 m is string 13 m above the ground. Calculate: i) Corona Inception voltage. ii) The effective radius of conductor to ground at an over voltage of 2.5 pu. iii) Capacitance of conductor to ground with and without corona. iv) Corona power loss.	CO2
6.	Compare EHVAC and HVDC transmission on the following aspects. i) Bulk Power Transmission ii) Power flow control iii) Skin effect iv) Insulation level v) Technical Performance vi) Economical Consideration	CO3
7.	State the different kinds of HVDC link along with their advantages and disadvantages and application.	CO3
8.	Explain the function and types of MTDC system.	CO3
9.	What is Earth electrode state the factors to be considered for selection of site for Earth Electrode.	CO3
10.	Describe various configuration of earth electrodes used in HVDC schemes.	CO3

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Course Coordinator

HoD,EE