

	<p style="text-align: center;">ADAMAS UNIVERSITY END-SEMESTER EXAMINATION : MAY 2021 (Academic Session: 2020 – 21)</p>		
Name of the Program: (Example: B. Sc./BBA/MA/B.Tech.)	B.Tech.	Semester: (I/III/ V/ VII/IX)	VIII
Paper Title :	ELECTIVE-VIII (EHV AC TRANSMISSION)	Paper Code:	EEE44124
Maximum Marks :	40	Time duration:	3 hrs
Total No of questions:	8	Total No of Pages:	2
(Any other information for the student may be mentioned here)	1. At top sheet, clearly mention Name, Univ. Roll No., Enrolment No., Paper Name & Code, Date of Exam. 2. All parts of a Question should be answered consecutively. Each Answer should start from a fresh page. 3. Assumptions made if any, should be stated clearly at the beginning of your answer.		

Answer all the Groups

Group A

Answer all the questions of the following

$5 \times 1 = 5$

1. a) Give ten levels of transmission voltages that are used in the world.
 b) Which circuit element attenuates the steepness of traveling wave?
 c) How to reduce corona loss of transmission lines?
 d) A 10 MVA generator has power factor 0.866 lagging. What is the amount of reactive power produced?
 e) What is power handling capacity and line losses?

GROUP –B

Answer *any three* of the following

$3 \times 5 = 15$

2. What are power handling capacity and line losses of an EHVAC transmission lines.
3. What are the effects of resistance in conductors?
4. Describe the behaviour of space-charge effects inside a corona envelope and discuss why load current cannot flow in a conductor inside this envelope even though it is a conducting zone.
5. Describe the difference between primary shock current and secondary shock current. What is the meaning of 'let-go' current?

GROUP –C

Answer *any two* of the following

$2 \times 10 = 20$

6. Write brief descriptions of (a) aeolian vibration, and (b) wake-induced oscillations. Describe the measures taken to minimize the damage due to them.

7. What are the properties of Bundled Conductors?
A 345-kV line has an ACSR Bluebird conductor 1.762 inches (0.04477 m) in diameter with an equivalent radius for inductance calculation of 0.0179 m. The line height is 12 m. Calculate the inductance per km length of conductor and the error caused by neglecting the internal flux linkage.
8. Why does line-generated corona noise not interfere with TV reception or FM radio reception? What causes interference at these frequencies?
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