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ISE Assignments

ISE NUMBER	QUESTION	CO NO.	BL	MAPPING WITH PO	MAPPING WITH PSO
ISE-1	1. Derive the expressions for resistance and inductance of ground return.	01	03	01	01
	2. Explain in detail advantages and disadvantages of high voltage	01	02	01	01
	3. Describe the line parameters of modes of propagation.	01	02	01	01
	4. Derive the relation between temperature rise and current carrying capacity of EHVAC line.	01	03	01	01
ISE-2	1. Derive the charge potential relations of multi-conductor lines.	02	03	01	01
	2. Derive the expression $P_C = \frac{1}{2} KC\,(V_m^2 - V_0^2)$ for the energy loss from charge-voltage diagram.	02	03	01	01
	3. Derive the reflection and refraction coefficients of travelling waves.	03	03	01	01
	4. What is standing wave? Derive equation for open ended line double exponential response.	03	03	01	01
ISE-3	1. Explain sinusoidal excitation lumped parameter circuit.	04	02	01	01
	2. Explain ferro-resonance over voltages.	04	02	01	01
	3. Explain reduction of switching surge over voltages in EHV systems.	04	02	01	01
	4. Write down the sources/causes of over voltages.	04	01	01	01
ISE-4	1. Explain the term power circle diagram and its use.	05	02	01	01
	2. Derive the expressions for generalized constants.	05	03	01	01
	3. A 100 MVA 230kV 50 Hz transformer has x_t = 12% and is connected to a line 200 km long which has an inductance of 1 mH/km. The filter, connected to the LV 33 kV side of the transformer, is required to suppress the 5^{th} harmonic generated by the TCR to 1% of I_n. Calculate the value of filter capacitor if the filter inductance used is 2mH.	05	03	02	01
	4. Explain the factors under steady state in design of EHV lines?	05	02	03	02