JHARKHAND Rai University
UGC RECOGNISED UNIVERSITY
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Lesson Plan & Tracking

Programe : B.Tech (MiN & CSE)	**Session : Fall 2022**	**Year : First**	**Sem: I**
Course: Basic Electrical Engineering			
Name of the Faculty: V F	**Commencement Date: 01/09/2022**		**Date of Closure: 30/12/2022**

Lecture No.	Week	Unit	Topics to be Covered	Blended Mode			Date	Duration	Tracking of Lectures	Related Course Outcome	Signature of Faculty	Signature of HoD	Remarks (if any)
				ICT Tool/Platform/ LMS	Resources	Activity							
1	1	1	Concept map										
2			R, L & C , Voltage and Current Sources										
3			KCL & KVL										
4	2		Analysis of simple circuits with dc excitation										
5			Superposition theorem										
6			Thevenin Theorm										
7	3	II	Norton theorems										
8			Time-domain analysis of first-order RL and RC circuits.										
9			Representation of sinusoidal waveforms, peak and rms values, phasor representation, real power										
10	4		reactive power, apparent power, power factor,										
11			Analysis of single-phase ac circuits consisting of R, L, C, RL, RC, RLC										
12			combinations (series and parallel), resonance										

13			Three-phase balanced circuits										
14	**5**		voltage and current relations in star and delta connections.										
15			Magnetic materials, BH characteristics										
16			ideal and practical transformer										
17	**6**	**III**	equivalent circuit, losses in transformers, regulation and efficiency.										
18			Generation of rotating magnetic fields,										
19			Construction and working of a three-phase induction motor										
20	**7**		Significance of torque-slip characteristic. Loss components and efficiency										
21			starting and speed control of induction motor.										
22			Single-phase induction motor.										
23	**8**		Construction, working, torque-speed characteristic										
24		**IV**	speed control of separately excited dc motor										
25			Construction and working of synchronous generators										
26	**9**		DC-DC buck and boost converters, duty ratio control										
27			Single-phase and three-phase voltage source inverters; sinusoidal modulation.										
28			Components of LT Switchgear										
29	**10**		Switch Fuse Unit (SFU)										
30			MCB, ELCB, MCCB										
31			Types of Wires and Cables										

32	**11**		Earthing & Types of Batteries										
33			Important Characteristics for Batteries.										
34			Elementary calculations for energy consumption										
35	**12**		Power factor										
36			Revision and discussions										