LESSON PLAN

SUB:- *CIRCUIT & SIMULATION LAB*

BRANCH:- ELECTRICAL ENGG.

SEMESTER:3rd

NAME OF FACULTY: - ASHWINI KUMAR SAHU

DEPT.OF ELECT.ENGG GOVT.POLY.BHADRAK ESTD-2017

GOVT.POLYTECHNIC, BHADRAK

GOVERNMENT POLYTECHNIC, BHADRAK

SESSION:2024-25

HoD Electrical

HOD (ELECT.)
G.P.BHADRAK

Academic Co-ordinator

Academic Co-ordinator

Principal
Govt. Polytechnic Bhadrak

Principal
Govt.Polytechnic
Bhadrak

DISCIPLINE *ELECTRICAL*	SEMESTER *3rd*	NAME OF THE TEACHING FACULTY ASHWINI KUMAR SAHU (Sr.Lect. in Elect. Engg.)
SUBJECT *CIRCUIT& SIMULATION LAB*	NO. OF DAYS/WEEK CLASS ALLOTTED – 90 (6P/week)	SEMESTER FROM DATE 01.07.2024 to 08.11.2024
WEEK	CLASS DAY	PRACTICAL TOPICS
1st	01	Measurement of equivalent resistance in series and parallel circuit
	02	Measurement of equivalent resistance in series and parallel circuit
	03	Measurement of equivalent resistance in series and parallel circuit
	04	Measurement of equivalent resistance in series and parallel circuit
2nd	01	Measurement of power and power factor using series R-L-C Load.
	02	Measurement of power and power factor using series R-L-C Load.
	03	Measurement of power and power factor using series R-L-C Load.
	04	Measurement of power and power factor using series R-L-C Load.
3rd	01	Verification of KCL and KVL
	02	Verification of KCL and KVL
	03	Verification of KCL and KVL
	04	Verification of KCL and KVL
4th	01	Verification of Super position theorem
	02	Verification of Super position theorem
	03	Verification of Super position theorem
	04	Verification of Super position theorem
5TH	01	Verification of Thevenin's Theorem

	02	Verification of Thevenin's Theorem
	03	Verification of Thevenin's Theorem
	04	Verification of Thevenin's Theorem
6TH	01	Verification of Norton's Theorem
	02	Verification of Norton's Theorem
	03	Verification of Norton's Theorem
	04	Verification of Norton's Theorem
7TH	01	Verification of Maximum power transfer Theorem
	02	Verification of Maximum power transfer Theorem
	03	Verification of Maximum power transfer Theorem
	04	Verification of Maximum power transfer Theorem
8TH	01	Determine resonant frequency of series R-L-C circuit
	02	Determine resonant frequency of series R-L-C circuit
	03	Determine resonant frequency of series R-L-C circuit
	04	Determine resonant frequency of series R-L-C circuit
9TH	01	Study of Low pass filter & determination of cut-off frequency
	02	Study of Low pass filter & determination of cut-off frequency
	03	Study of Low pass filter & determination of cut-off frequency
	04	Study of Low pass filter & determination of cut-off frequency
10TH	01	Study of High pass filter & determination of cut-off frequency
	02	Study of High pass filter & determination of cut-off frequency
	03	Study of High pass filter & determination of cut-off frequency
	04	Study of High pass filter & determination of cut-off frequency

	01	Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically
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	01	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Superposition theorem
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		measurements and waveforms. Superposition theorem
14TH	01	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Series Resonant Circuit
	02	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Series Resonant Circuit
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	04	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Series Resonant Circuit
15TH	01	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Transient Response in R-L-C series circuit
	02	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Transient Response in R-L-C series circuit
	03	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Transient Response in R-L-C series circuit
	04	Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. Transient Response in R-L-C series circuit

ASH... HU
Sr. Lect.(Elect.)
Govt. Poly. Bhadrak