

LABORATORY ASSIGNMENT /SHEET /JOB /PROJECT ACTIVITY PLANNING (LP)

Academic Year: 2025-26 (EVEN)

Institute Name: PPCOE, Karjat.

Program and Code: Electrical Engineering (EOE)

Course Name: FUNDAMENTAL OF ELECTRICAL ENGINEERING (FEE)

Class: EE2K

Semester: 2nd

Scheme: K

Date: 15/12/2025

MSBTE Code: 61303

Course Code & Abbr.: 312309(EOE)

Name of Faculty: Mrs. Dhande. M.A.

Learning Hrs. 60

• Teaching-Learning & Assessment Scheme:

Course Code	Course Title	Abbr	Course Category	Learning Scheme						Credits	Paper Duration	Assessment Scheme										Total Marks
				Actual Contact Hrs./Week			SLH	NLH	Theory				Based on LL & TSL Practical				Based on SL					
				CL	TL	LL			FA-TH			SA-TH	Total		FA-PR		SA-PR		SLA			
													Max	Min	Max	Min	Max	Min	Max	Min		
312309	ELEMENTS OF ELECTRONICS	EOE	DSC	4	-	4	2	10	5	3	30	70	100	40	25	10	25#	10	25	10	175	

Abbreviations: CL- Class Room Learning, TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA - Formative Assessment, SA -Summative assessment, IKS – Indian Knowledge System, SLA - Self Learning Assessment
Legends: @ Internal Assessment, # External Assessment, ** On Line Examination, @\$ Internal Online Examination

• COURSE LEVEL LEARNING OUTCOMES (COS)

- CO1 - Identify various electronic components.
- CO2 - Use semiconductor diodes in different applications.
- CO3 - Use semiconductor transistors in different applications.
- CO4 - Use different types of Oscillators as per requirement.
- CO5 - Test operation of regulated power supply.

• COs, Practical Laboratory Learning Outcome (LLOs) and Mapping:

Pr. No	COs	LLO	Name of Experiments / Assignment / Sheet / Job/ Project Activity	Planned Date A/B/C		Actual date of Performance	Remark
				From	To		
1	CO1	1.1	Identification of Active and Passive components and DMM handling. .	A- B- C-	A- B- C-	A- B- C-	
2	CO1	2.1	Measurement of amplitude, time period and frequency of given on CRO.	A- B- C-	A- B- C-	A- B- C-	
3	CO1	3.1	Check the performance of PN Junction diode.	A- B- C-	A- B- C-	A- B- C-	
4	CO1 CO2	4.1	Check performance of Zener diode.	A- B- C-	A- B- C-	A- B- C-	
5	CO1	5.1	Test the performance of photo diode by varying the light intensity as well as the distance of the light source.	A- B- C-	A- B- C-	A- B- C-	

6	CO1 CO2	6.1	Construct and Test the half wave rectifier.	A- B- C-	A- B- C-	A- B- C-	
7	CO1 CO2	7.1	Prepare and Test the half wave rectifier with LC filter/ π filter	A- B- C-	A- B- C-	A- B- C-	
8	CO1	8.1	Build and Test the full wave rectifier using two diodes	A- B- C-	A- B- C-	A- B- C-	
9	CO1 CO2	9.1	Construct and Test the full wave Bridge rectifier on bread board using four diodes	A- B- C-	A- B- C-	A- B- C-	
10	CO1 CO2	10.1	Use LC/ π filter with full wave rectifier to measure ripple factor.	A- B- C-	A- B- C-	A- B- C-	
11	CO1 CO2	11.1	Prepare and Test the full wave rectifier on bread board using IC KBU 808 with filter.	A- B- C-	A- B- C-	A- B- C-	
12	CO1 CO2	12.1	Build clipper circuit and observe the waveforms.	A- B- C-	A- B- C-	A- B- C-	
13	CO1 CO2	13.1	Construct clamper circuit and observe waveforms.	A- B- C-	A- B- C-	A- B- C-	
14	CO1 CO3	14.1	Identify and select transistors for given application using datasheets	A- B- C-	A- B- C-	A- B- C-	
15	CO1 CO3	15.1	Build and Test the performance of BJT in CB mode	A- B- C-	A- B- C-	A- B- C-	
16	CO1 CO3	16.1	Construct and test the circuit for BJT in common emitter configuration.	A- B- C-	A- B- C-	A- B- C-	
17	CO1 CO3	17.1	Test the performance parameters of BJT as Switch	A- B- C-	A- B- C-	A- B- C-	
18	CO1 CO4	18.1	Check the performance of FET drain Characteristics.	A- B- C-	A- B- C-	A- B- C-	
19	CO1 CO4	19.1	Test the performance of FET transfer characteristics and calculate trans conductance.	A- B- C-	A- B- C-	A- B- C-	

20	CO4	20.1	Measure the frequency of given Oscillator circuit	A- B- C-	A- B- C-	A- B- C-	
21	CO4	21.1	Find out faults at different stages of regulated DC power supply	A- B- C-	A- B- C-	A- B- C-	
22	CO4	22.1	Trouble shoot given DC regulated power supply	A- B- C-	A- B- C-	A- B- C-	
23	CO4 CO5	23.1	Build and Test the performance of Zener voltage regulator for given voltage.	A- B- C-	A- B- C-	A- B- C-	
24	CO4 CO5	24.1	Construct and Test the performance of Positive voltage regulator using 78XX, three terminal IC for given voltage.	A- B- C-	A- B- C-	A- B- C-	
25	CO4 CO5	25.1	Prepare and Test the performance of Dual voltage regulator using 78XX and 79XX ,three terminal IC for given voltage	A- B- C-	A- B- C-	A- B- C-	
26	CO4 CO5	26.1	Test the performance of IC 723 as Regulator.	A- B- C-	A- B- C-	A- B- C-	

. ASSESSMENT METHODOLOGIES/TOOLS

- **Formative assessment (Assessment for Learning)**
 - Term Work
 - Assignment
- **Summative Assessment (Assessment of Learning)**
 - End Term Exam Theory
 - Micro-project
 - Tutorial Performance

(Name Signature of Faculty)

(Name & Signature of HOD)

