

L D COLLEGE OF ENGINEERING

ELECTRICAL DEPARTMENT

MID-SEM SYLLABUS

SUB: - Basic Electrical Engineering (3110005)

YEAR: - 2023-24 (Even Sem)

Date of Exam-01/04/2024

Ch No.	TOPICS	CO	Weightage
1	<u>DC Circuit:</u> DC Circuits: Electrical circuit elements (R, L and C), voltage and current sources, Kirchhoff's current and voltage laws, analysis of simple circuits with dc excitation. Superposition, Thevenin and Norton Theorems. Time-domain analysis of first-order RL and RC circuits.	CO ₁	50%
2	<u>AC Circuits:</u> Representation of sinusoidal waveforms, peak and RMS values, Phasor representation of AC quantities, real power, reactive power, apparent power, power factor. Analysis of single-phase ac circuits consisting of R, L, C, RL, RC, RLC combinations (series).	CO ₂	35%
3	<u>Transformers:</u> Magnetic materials, BH characteristics. Construction and working principle of single-phase transformer, EMF Equation, Ideal Transformer operation.	CO ₃	15%

Instructions for BEE Mid Semester Exam:

1. Exam will be conducted in offline mode only.
2. Total marks will be of 30 marks.
3. Duration of exam will be 1.5 hour.