# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

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S.No.	Week	Topic	Mode of Delivery		
1	Weeks 1 to 3 (10 contact hours,	Basics of dc and ac circuits - Concepts	Lecture/ Tutorial		
2	including two contact hours for problem solving)	numerical examples/ problem solving	Group work (exercise)		
3	Weeks 4 to 6 (10 contact hours,	Source transformation, Network Theorems, star-delta equivalence	Lecture / Tutorial		
4	including two contact hours for problem solving)	numerical examples/ problem solving	Group work (exercise)		
5	Weeks 7 to 9 (10 contact hours,	Resonance, and analysis of coupled circuits	Lecture / Tutorial		
6	including two contact hours for problem solving)	numerical examples/ problem solving	Group work (exercise)		
7	Weeks 10 to 12	Three-phase circuits	Lecture / Tutorial		
8	(10 contact hours, including two contact hours for problem solving)	numerical examples/ problem solving	Group work (exercise)		
9	Weeks 13 to 15 (10 contact hours,	Time response of RL, Rc and RLC circuits	Lecture / Tutorial		
10	including two contact hours for problem solving)	numerical examples/ problem solving	Group work (exercise)		

### **Mode of Assessment**

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	1 <sup>st</sup> Mid Semester Examination (Written test) (1 <sup>st</sup> and 2 <sup>nd</sup> Units)	6 <sup>th</sup> Week	60 Minutes	20
2	2 <sup>nd</sup> Mid Semester Examination (Written test) (3rd and 4 <sup>th</sup> Units)	12 <sup>th</sup> Week	60 Minutes	20
3	Take Home / Team Task	3 <sup>rd</sup> to 13 <sup>th</sup> week	Work will be carried out along with the course	10
4	Retest (Written Test) (1 <sup>st</sup> to 4 <sup>th</sup> Unit)	14 <sup>th</sup> week	60 Minutes	20
5	End Semester Examination (Written test)	16 <sup>th</sup> week	180 Minutes	50

Note:

- Attending all the assessments (Assessment 1-3 and 5) are MANDATORY for every student.
- If any student is not able to attend Assessment-1 (1<sup>st</sup> Mid Sem) / Assessment-2 (2<sup>nd</sup> Mid Sem) due to genuine reason, student is permitted to attend the Assessment- 4 (retest) with 20% weightage (20 marks).
- 3. In any case, retest will not be considered as an improvement test.

#### **ESSENTIAL READINGS:**

#### Text Books:

- Hayt, W. H, Kemmerly J. E. & Durbin, 'Engineering Circuit Analysis', McGraw Hill Publications, 8<sup>th</sup> Edition, 2013.
- 2. Charles K. Alexander, Matthew N.O.Sadiku, 'Fundamentals of Electric Circuits', McGraw-Hill Publications, 5<sup>th</sup> Edition, 2013.

#### Reference Books:

- Joseph. A. Edminister, 'Electric Circuits Schaum's Outline Series', McGraw-Hill Publications, 6<sup>th</sup> Edition, 2003.
- Robins & Miller, 'Circuit Analysis Theory and Practice', Delmar Publishers, 5<sup>th</sup> Edition, 2012.

#### COURSE EXIT SURVEY

Shall be obtained at the end of the course

#### **COURSE POLICY**

#### **ATTENDANCE**

- 1. Attendance will be taken by the faculty in all the contact hours. Every student should maintain minimum 75 % physical attendance in these contact hours to attend the end semester examination.
- 2. Any student, who fails to maintain 75% attendance need to appear for the retest. Student who scores more than 50 % marks in the retest will be eligible for attending the end semester examination.
- Students not having 75% minimum attendance at the end of the semester and also fail in retest (scoring less than 50%) will have to RE-DO the course.

## ACADEMIC HONESTY & PLAGIARISM

 Copying in any form during assessments is considered as academic dishonesty and will attract suitable penalty.

FOR APPROVAL

Course Faculty TO

CC-Chairperson