

Lesson plan

Name of the faculty : Mr. Manoj Bansal

Discipline : Electrical & Electronics Engineering

Semester : 6th

Subject : Computer Added Electric Machine Design

Lesson Plan Duration : 15 weeks (From January, 2020 to April 2020)

Work Load (Lecture/ Practical) per week (in hours): Lecture-02, Practical-01

Week	Theory	
	Lecture day	Topic(Including assignment/test)
1 st	1 st	GENERAL: General features and
	2 nd	Limitations of electrical machine design
2 nd	1 st	Types of enclosures
	2 nd	Heat dissipation
3 rd	1 st	Temperature rise
	2 nd	Cooling media used
4 th	1 st	BASIC DESIGN PRINCIPLES: Output equation
	2 nd	Output coefficient
5 th	1 st	Heating cooling cycles and ratings of machine machines
	2 nd	Specific electric and magnetic loading.
6 th	1 st	Effect of size and ventilation
	2 nd	MAGNETIC CIRCUITS: MMF calculation for airgun and iron parts of electrical machines
7 th	Sessional -I Examination+Activity	
8 th	1 st	Gap contraction coefficient. Real and apparent flux densities
	2 nd	Estimation of magnet current of transformers and rotating machines,
9 th	1 st	No load current of transformers and induction motors

	2 nd	Leakage flux and reactance calculations for transformers and rotating machines,
10 th	1 st	Design of field magnet.
	2 nd	DETAILED DESIGN: Design of transformer,
11 th	1 st	D.C. machines induction motor and.
	2 nd	Synchronous machine and their performance calculations
12 th	1 st	COMPUTER AIDED DESIGN: Computerization of design Procedures
	2 nd	Development of Computer program
13 th	1 st	Performance prediction
	2 nd	Optimization techniques and their applications to design Problems
14 th	1 st	Revision
	2 nd	Revision
15 th	1 st	Revision
	2 nd	Revision
16 th	Sessional -II Examination+Activity	

Faculty Signature