

GOVERNMENT CO.ED POLYTECHNIC RAIPUR (C.G)

DEPARTMENT OF ELECTRICAL ENGINEERING

LESSON PLAN

Session:

Session start as per university calendar:

Course Name: AC Machines

Name of Subject Teacher

Lecturer plan T+P = 3

Discipline: EE, EEE		Semester: 4th	Class room Instruction Start Date:						
S.No.	Chapter No.	Topics	Sub Topic to be covered under this unit	Total hours	No. of periods planned	Actual No of periods taken	Date of Class Conduction	Use of AV resources if any	Remarks if any
1	1	Alternators	Types & Applications	17					
			Construction – Salient and cylindrical rotor, equivalent circuit and phasor diagram						
			Voltage equation, Open circuit and short circuit characteristics					NA	
			Synchronization and its condition, two bright and one dark lamp						
			Cooling system of alternator, maintenance of given alternators						
2	2	Synchronous Motor	Working Principle, starting methods, Equivalent circuit and phasor diagram	15					
			Effect of change in excitation and PF, V and Inverted V curves						
			Applications of synchronous motor, constant speed, condenser					NA	
			Hunting and its prevention						
			Maintenance of synchronous motors						
3	3	Three Phase Induction Motors	Construction, types, SCIM, SRIM, working principle, Torque slip curve	18					
			Torque equation, starting, running, and condition for max torque						
			Starter and its types, DOL, Star-delta, auto transformer type						
			No load and blocked rotor test, losses and efficiency					NA	
			Speed control of SCIM and SRIM						
			Maintenance of different types of induction motors						
4	4	Single Phase Induction Motor	Construction, working and types based on starting methods- split	13					
			Double revolving field theory equivalent circuit						
			Speed /torque characteristics						
			Maintenance of different types of single phase motors						
5	5	Special Electrical Machines	Construction, working, speed/torque characteristics	12					
			AC servo motor, linear induction motor					NA	
			Reluctance motor, hysteresis motor, AC series, universal motor						
			75 Hours						