

Course Code/Name : BE3254 Electrical and Instrumentation Engineering
Regulation : R2021
Branch : ECE

UPC – Student Planner

Slot	Unit .No.	Name of the Unit	Questions	CO Mapping	Grade	
					A	B
1	I	Transformer	1. Construction & Working principle of Transformer 2. Equivalent circuit of transformer 3. Different types of testing 4. Problems based on Efficiency, voltage regulation, 5. Working principle of Autotransformer 6. Different connection of three phase transformer	C112.1	1 2 3 4 5	6
2	II	DC Machines	1. Construction, Working, of DC generator 2. Construction, Working, of DC Motor 3. Emf and torque equation 4. Three point and four point starter 5. Characteristics of the DC motor 6. Stepper motor, Universal motor, brushless DC motor	C112.2	1 2 3 4 5	6
3	III	AC Rotating Machines	1. Construction ,Principle of three phase induction motor, Types 2. Equivalent circuit of 3 phase induction motor 3. Construction, Working, Types, starting method and EMF equation of Single phase Transformer 4. Construction, Working, starting method and Torque equation of Synchronous motor 5. Speed control	C112.3	1 2 3 4 5	
4	IV	Measurements and Instrumentation	1. PMMC and MI instruments 2. Block diagram of DSO 3. Energy meter 4. Data Acquisition system 5. Three phase power measurement 6. Instrument Transformers (CT, PT)	C112.4	1 2 3 5	4 6
5	V	Basic of Power systems	1. Structure of power system 2. Method of earthing 3. Protective device 4. MCB, MCCB, ELCB 5. Safety precautions and first Aid	C112.5	1 2 3 4 5	
6	Part-A Questions					