

GOVERNMENT POLYTECHNIC, VAISHALI
ELECTRONICS ENGINEERING, SEMESTER – IV
LECTURE PLAN FOR LEFT SYLLABUS EFFECTIVE FROM 10-04-2020
SUBJECT:- ELECTRONICS COMPONENT AND MATERIAL(1621402)
SUBJECT TEACHER –ASHISH VERMA

S.NO	UNIT	TOPIC TO BE COVERED	NO. OF PERIOD	BOOK
1	5	P.C.B. Construction Materials :- (Base Materials)	L1	Self notes,T2
2	4	Type of inductor	L2,L3	Self notes,R2,T1
		Faradays law, lenz law, Fleming right hand rule	L4	Self notes, T1
		Induction of coil	L5	Self notes, T1,
		Dynamic induced e.m.f	L6	Self notes, T1
		Static induced e.m.f	L7,	Self notes, T1
		Self inductance, mutual inductance , inductance in series, inductance in parallel, rise time of inductive circuit	L8,L9,L10	Self notes, T1
		Time constant, Decay of current in inductive circuit, skin effect, eddy current loss, energy stored in magnetic field	L11, L12	Self notes, T1
		B-H curve and hysteresis loss	L13	Self notes, T1
3	3	Transformer and Chokes	L14	Self notes
		Working principle of transformer	L15,	Self notes,T1,T2
		Theory of ideal transformer, e.m.f equation of transformer, voltage transformation ratio	L16,L17	Self notes, T1,T2
		Transformer on no load , transformer on load condition	L18,L19	Self notes, T1,T2
		Testing of transformer(open circuit test, short circuit test ,polarity test	L20	Self notes T1,T2
		Transformer efficiency.	L21	Self notes T1,T2

BOOKS:-

1. T1:- Principle of Electrical Engineering and Electronics, S. Chand publication by V.K. Mehta & Rohit Mehta
2. T2 :- Electronics component and Material, Foundation publication house by S.N. Modi & Manoranjan kumar
3. R1 :- Hand Book for Electronic Engineering Technician - Milt Mafman and Arthur H. Seedman.
4. R2 :- Electronic Assembly and Fabrication - Goshan J. Wheeler
5. R3 :- Radio Circuit Construction, Mir Publication. - A.T. Belesvtsev