Seat N	o.:	Enrolment No	
OUTATION SUMMER-2014 PDDC- SEMESTER – I – EXAMINATION SUMMER-2014 Subject code: X10901 Date: 21-06-2014 Subject code: X10901 Date: 21-06-2014 Subject Name: ELEMENTS OF ELECTRICAL ENGINEERING Total Marks: 70			
Instr 1. 2. 3.	uctio Atter Make Figur	ons: npt any five questions. e suitable assumptions wherever necessary. res to the right indicate full marks.	
Q.1	(a)	a) What is temperature co-efficient? Derive equation for the effect of	
	(b)	(b) Derive the equivalent resistance equitation for star and delta connected resistors.	07
Q.2	(a)	Derive the equation for equivalent capacitance when capacitor are	07
	(b)	Derive the equitation for energy stored in capacitor.	07
Q.3	(a) (b)	Explain the Flemings right and left hand rule for electro-magnetism. Give similarities and dissimilarities between magnetic circuit and electrical circuit.	07 07
Q.4	(a) (b)	Derive the equatation for rise and decay of current in L-R circuit. Explain how we can obtain hysteresis loop for magnetic material. Which factors are responsible for hysteresis loss?	07 07
Q.5	(a) (b)	What is resonance? Explain resonance in series resonance in RLC circuit. Derive the relationship between current and voltage for star connection in power system.	07 07
Q. 6	(a)	How can we measure power of three phase connection with two watt-	07
	(b)	meter method? Explain statically induced emf and dynamically induced emf. Where can we use this principle in electrical engineering?	07
Q. 7	(a) (b)	Prove that power consumed by purely inductive circuit is zero. Derive the equitation for time constant and voltage across capacitor for series RC circuit.	07 07
