RAYALASEEMA UNIVERSITY COLLEGE OF ENGINEERING, KURNOOL – 518007
B.Tech II Semester (RU23) I Sessional Examinations –March 2025
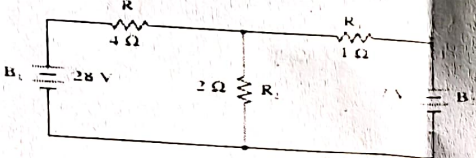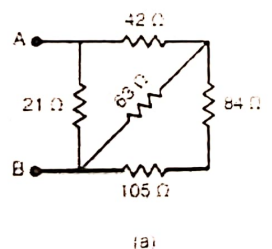### BASIC ELECTRICAL & ELECTRONICS ENGG. (23AES0201) (CSE)

24RU1A05A9

Time: 120 min   Date:11/03/2025 (FN)   Max. Marks: 40

PART-A   (4 x 10 = 40)

Answer ONE FULL question from each unit   **All the Questions Carry EQUAL marks**

Q.No		Question	Unit	BT Level	CO covered	Marks Allotted
1	a)	Explain superposition theorem? Verify the superposition theorem for current in 2Ω resistor.	I	L1	CO1	(8M)
	b)	Define ohms law, KVL.	I	L2	CO1	(2M)
		(OR)				
2	a)	Explain active power, reactive and apparent power.	I	L3	CO1	(8M)
	b)	Define Form factor and Peak factor	I	L2	CO1	(2M)
3	a)	Explain the working principle of DC machine with a neat diagram	II	L2	CO1	(8M)
	b).	What is the working purpose of wheat stone bridge	II	L2	CO1	(2M)
		(OR)				
4	a)	Explain the working principle of three phase induction motor with a neat diagram	II	L2	CO1	(8M)
	b)	What is PMMC	II	L2	CO1	(2M)
5	a)	Explain the hydral power plant with a neat diagram	III	L1	CO2	(8M)
		Explain current bill calculation	III	L2	CO3	(2M)
		(OR)				
6	a)	Explain the nuclear power plant with a neat diagram	III	L2	CO2	(8M)
	b)	What are the precautionary methods to be taken to protect from electric shock	III	L1	CO2	(2M)
7	a)	Define RMS value, Average value	I	L1	CO2	(5M)
	b)	Find the equivalent resistance between A and B	I	L1	CO2	(5M)
		(OR)				
8	a)	Explain the working principle of alternator or generator	II	L2	CO3	(8M)
	b)	Explain the fuse, MCB.	III	L3	CO2	(2M)