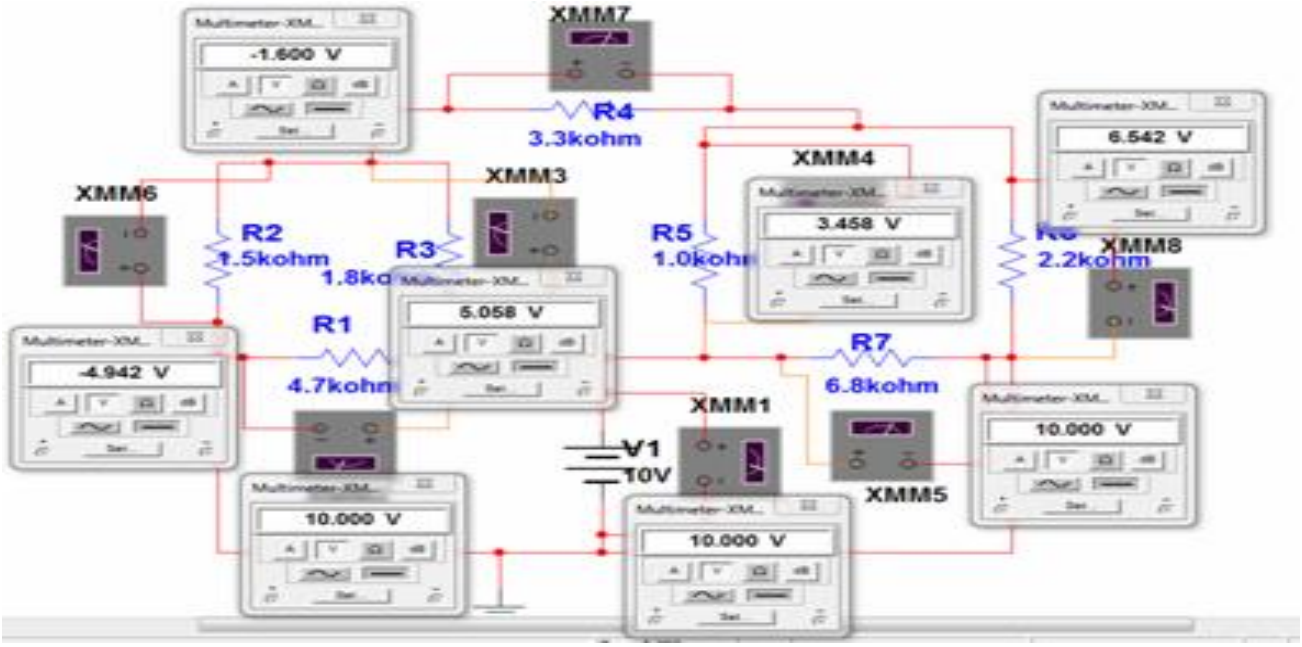
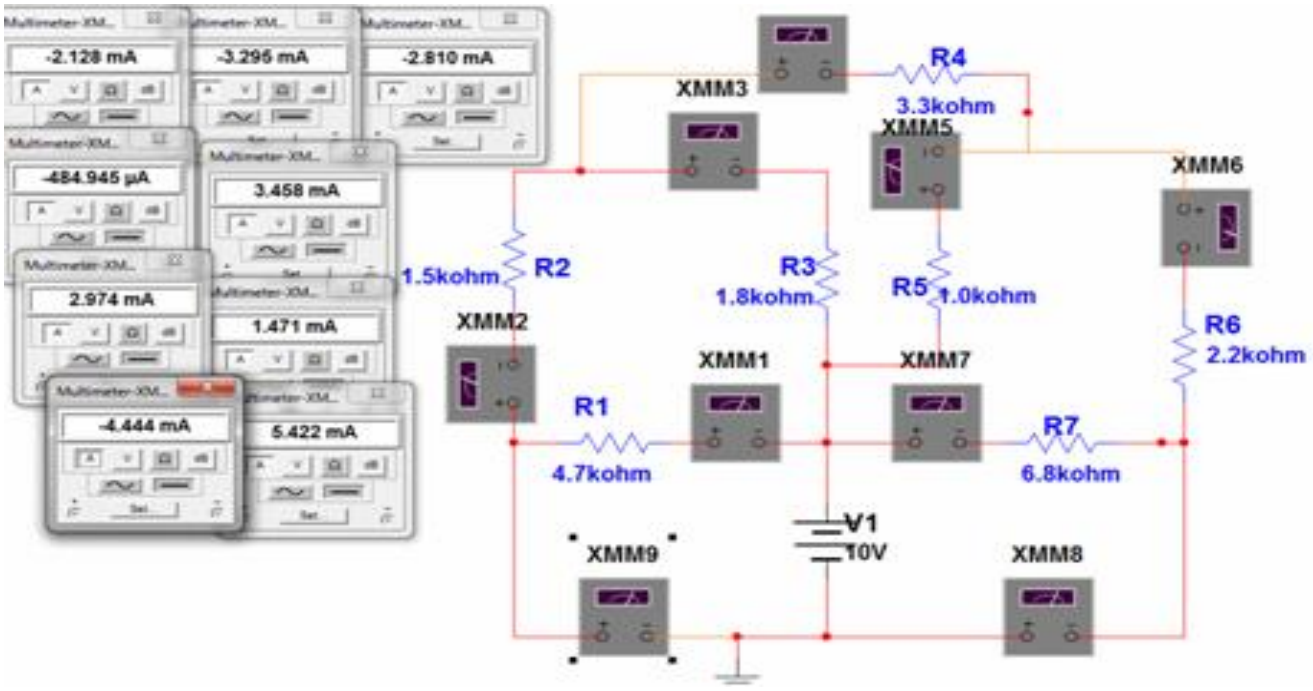
1.Node – Voltage Method:

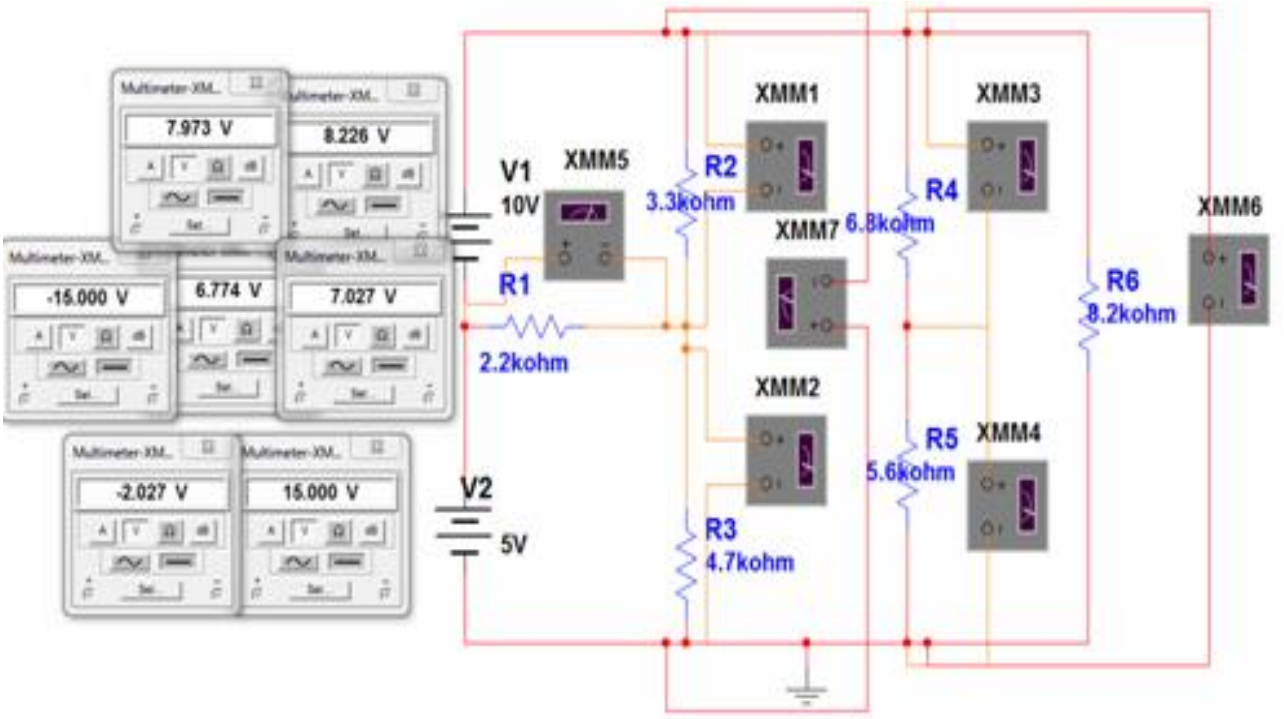


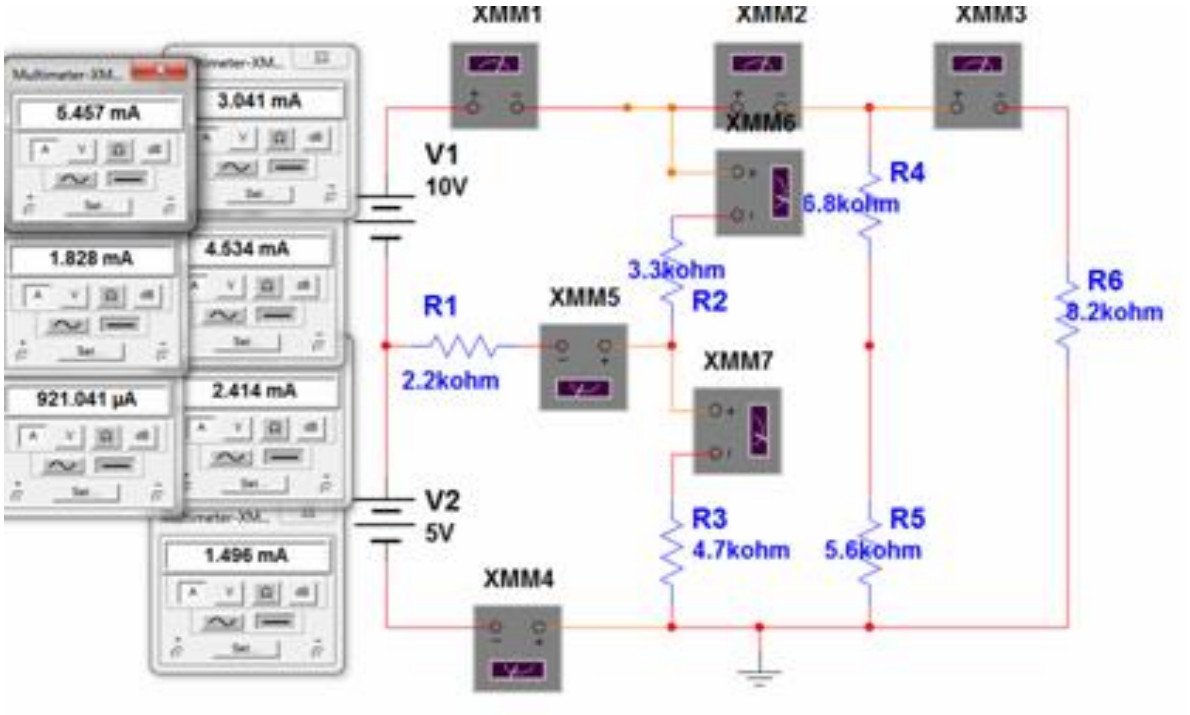


Parameter	*Units*	*Theoretical*
VAF	V	10
VAB	V	10
VAC	V	5.058

VAD	V	3.458
VAE	V	10
VBC	V	-4.942
VCD	V	-1.6
VDE	V	6.542
I1	mA	-2.128
I2	mA	-3.295
I3	mA	-2.81
I4	mA	-0.484
I5	mA	3.46
I6	mA	2.97
I7	mA	1.47
I8	mA	-4.444
I9	mA	5.422

2.mesh – current method:

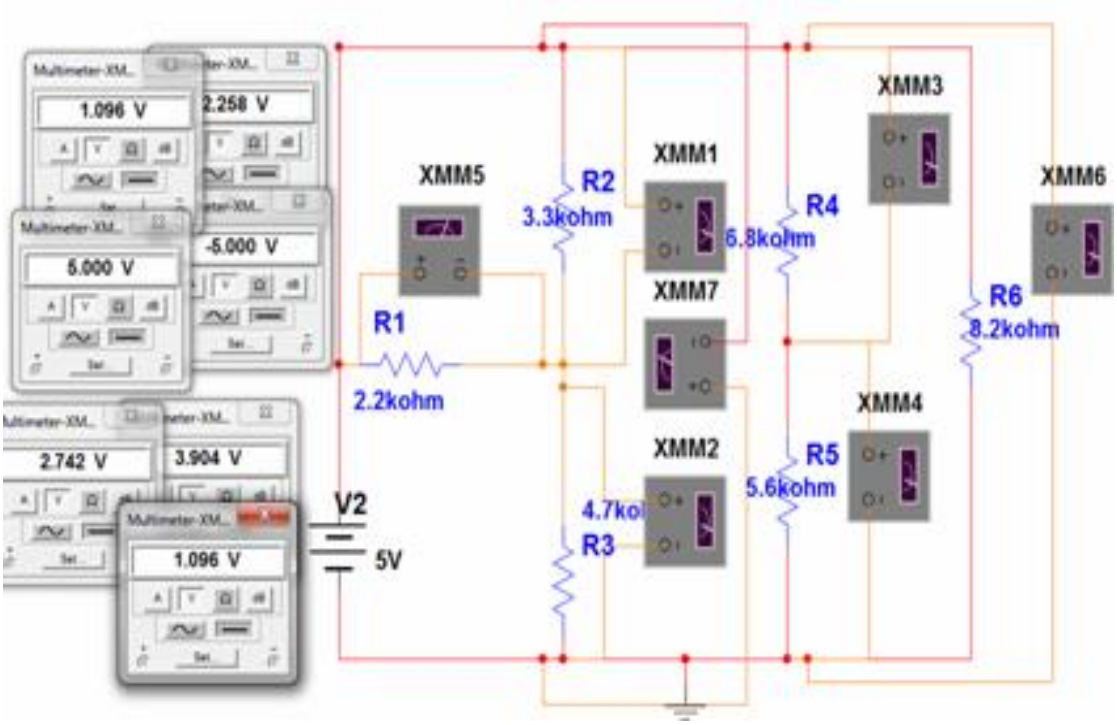


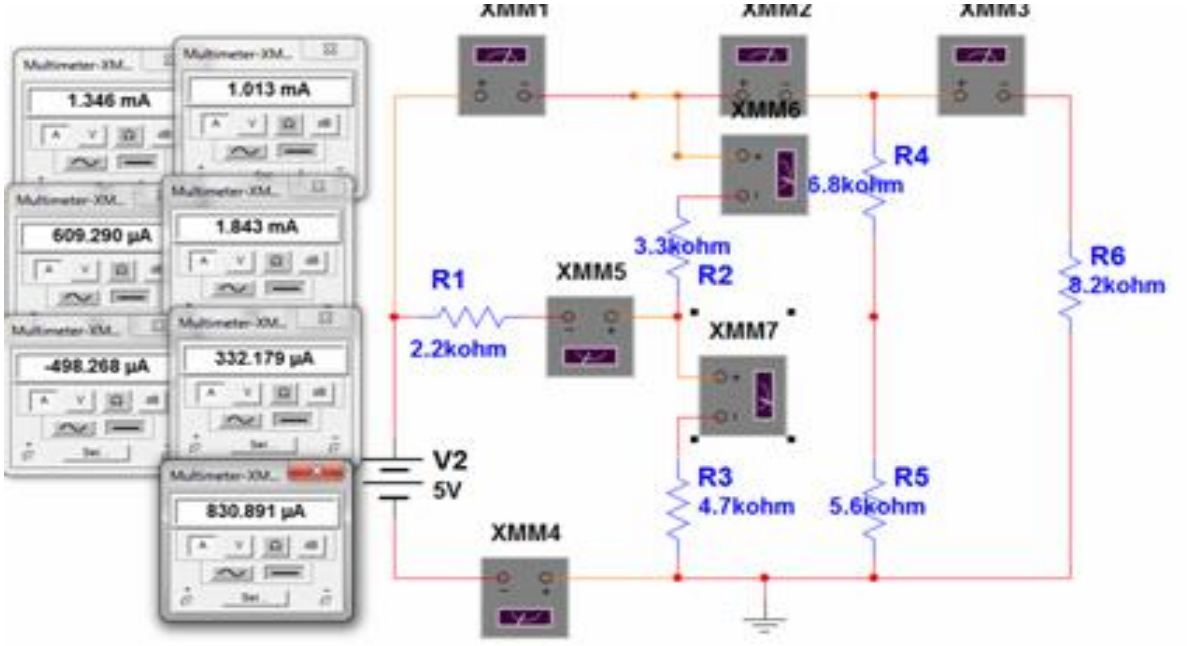


Parameter	Units	Theoretical
VAD	V	7.973
VDF	V	7.027
VBE	V	8.226
VEG	V	6.774
VCD	V	- 2.027
VBG	V	15
VFA	V	- 15
I1	mA	5.452
I2	mA	3.038
I3	mA	1.828
I4	mA	4.530
IDC	mA	0.921
IAD	mA	2.416
IDF	mA	1.495

3. superposition:

Part a:



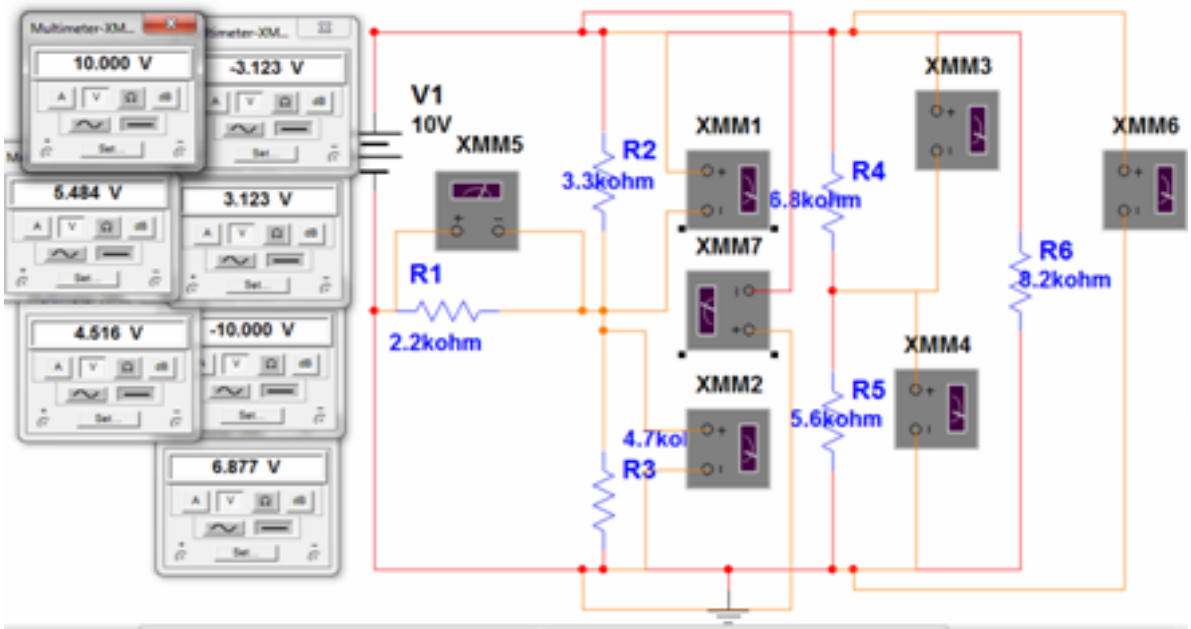


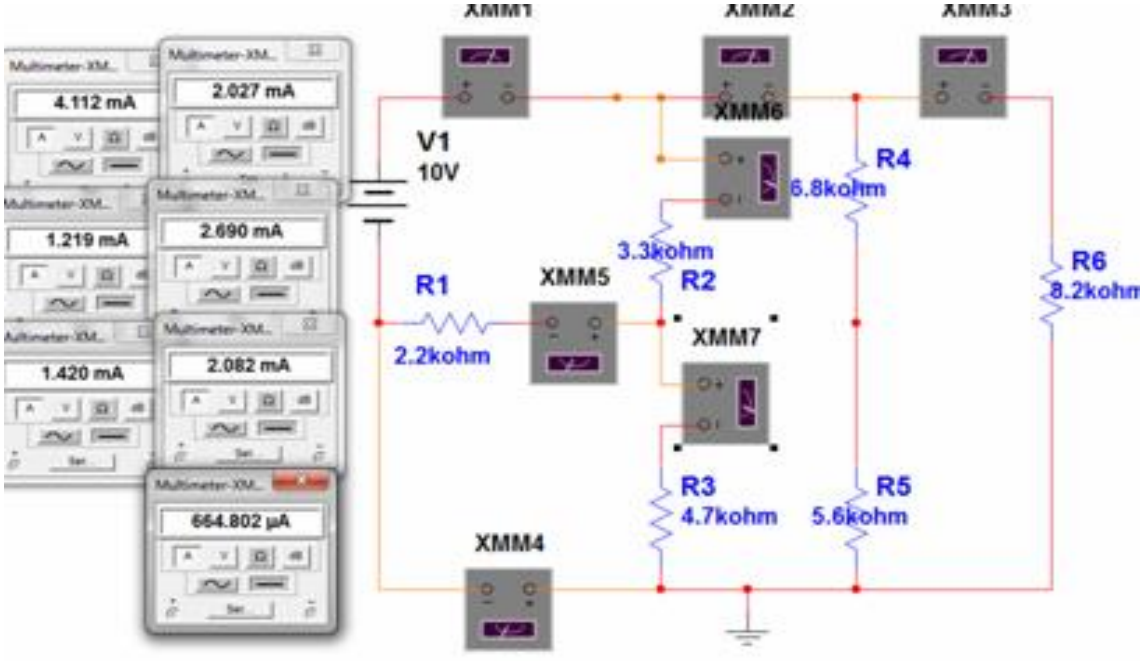
Param	*Units*	*Theoretical*
V'AD	V	1.096

V'DF	V	3.904
V'BE	V	2.742
V'EG	V	2.258
V'CD	V	1.096
V'BG	V	5
V'FA	V	- 5
I'1	mA	1.346
I'2	mA	1.013
I'3	mA	0.609
I'4	mA	1.843
I'DC	mA	- 0.498
I'AD	mA	0.332
I'DF	mA	0.831

3.Superposition:

Part 2:





Parameter	Units	Theoretical
V"AD	V	6.877
V"DF	V	3.123
V"BE	V	5.484
V"EG	V	4.516
V"CD	V	- 3.123
V"BG	V	10
V"FA	V	- 10
I"1	mA	4.112
I"2	mA	2.027
I"3	mA	1.219
I"4	mA	2.69
I"DC	mA	1.42
I"AD	mA	2.082
I"DF	mA	0.665

The Hashemite University
Faculty Of Engineering
Department of Electrical Engineering
Electrical Circuit Lab
(409300)
Experiment "3" (techniques of circuit analysis (1)
(nodal , mesh, superposition))
Prelab "3"

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*Student Name:
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*Date: 27/june/2010
*Day: sunday