Started on	Saturday, 9 September 2017, 2:43 PM
State	Finished
Completed on	Saturday, 9 September 2017, 3:25 PM
Time taken	42 mins 23 secs
Grade	**10.0** out of 10.0 (**100**%)

Question 1

Correct

Mark 1.0 out of 1.0

If a 42.8kΩ resistor has 0.23mA flowing through it, then what is the value of the voltage across this resistor in volts?

Answer: 9.844

The correct answer is: 9.84

Correct

Marks for this submission: 1.0/1.0.

Question 2

Correct

Mark 1.0 out of 1.0

If a 9.7mA current source is applied to a 1.8kΩ resistor connected in parallel with a 27.0kΩ resistor, then what is the current through the 1.8kΩ resistor in milliamps?

Answer: 9.09

The correct answer is: 9.09

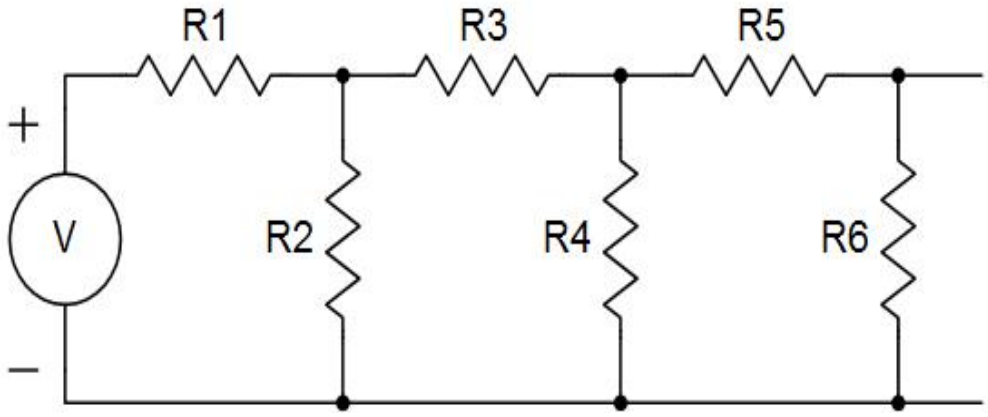
Correct

Marks for this submission: 1.0/1.0.

Question 3

Correct

Mark 1.0 out of 1.0



Through repeated applications of Thevenin's Theorem, find the value of the open circuit output voltage for the circuit shown in volts. Use: V = 6.9V, R1 = 9.1kΩ, R2 = 50.0kΩ, R3 = 15.1kΩ, R4 = 36.3kΩ, R5 = 14.7kΩ and R6 = 23.8kΩ.

Answer: 1.63

The correct answer is: 1.63

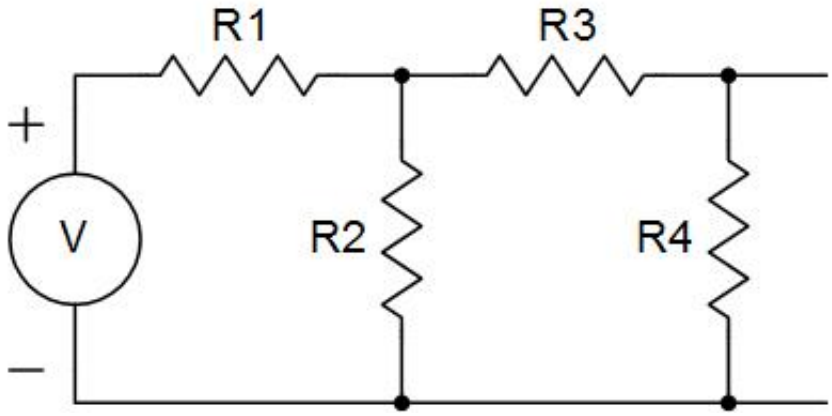
Correct

Marks for this submission: 1.0/1.0.

Question 4

Correct

Mark 1.0 out of 1.0



Through repeated applications of Thevenin's Theorem, find the value of the Thevenin equivalent resistance for the circuit shown in kilohms. Use: V = 7.8V, R1 = 19.2kΩ, R2 = 26.1kΩ, R3 = 29.7kΩ and R4 = 17.2kΩ.

Answer: 12.1 ✓

The correct answer is: 12.10

Correct

Marks for this submission: 1.0/1.0.

Question 5

Correct

Mark 1.0 out of 1.0

Which of the following circuit elements looks like an open circuit at very high frequencies?

Select one:

- a. Inductors ✓
- b. Capacitors
- c. All of these
- d. None of these
- e. Resistors

The correct answer is: Inductors

Correct

Marks for this submission: 1.0/1.0.

Question 6

Correct

Mark 1.0 out of 1.0

If the frequency of a constant AC voltage source applied across an ideal capacitor is increased, then the current flowing through the capacitor will :

Select one:

- a. No way to determine
- b. Increase ✓
- c. Decrease
- d. None of these
- e. Stay constant

The correct answer is: Increase

Correct

Marks for this submission: 1.0/1.0.

Question 7

Correct

Mark 1.0 out of 1.0

For which of the following circuit elements does the magnitude of the impedance increase as frequency increases?

Select one:

- a. Inductors ✓
- b. Resistors
- c. Capacitors
- d. All of these
- e. None of these

The correct answer is: Inductors

Correct

Marks for this submission: 1.0/1.0.

Question 8

Correct

Mark 1.0 out of 1.0

The Norton's equivalent current for a circuit is found by measuring the open circuit output current of the circuit.

Select one:

- True
- False ✓

The correct answer is 'False'.

Correct

Marks for this submission: 1.0/1.0.

Question 9

Correct

Mark 1.0 out of 1.0

The Thevenin's equivalent resistance for a circuit is found by measuring the resistance looking into the output terminals of the circuit while all dependent voltage and current sources are set equal to zero.

Select one:

- True
- False ✓

The correct answer is 'False'.

Correct

Marks for this submission: 1.0/1.0.

Question 10

Correct

Mark 1.0 out of 1.0

An inductor looks like a open circuit at very high frequencies.

Select one:

- True ✓
- False

The correct answer is 'True'.

Correct

Marks for this submission: 1.0/1.0.