Title: **Parallel Circuits** Quiz: 5

Course: Electrical Applications Unit: Electrical Theory CLO: 3

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade \_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall determine correct characteristics of a parallel circuit.
2. Student shall calculate various electrical quantities for a parallel circuit based on Ohm’s and Watt’s Laws.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Quiz. Grading shall be based on an answer key.

**Instructions**

Select the correct answer to the following multiple-choice questions.

1. Conductance is the \_\_\_\_\_\_\_\_\_\_\_ at which current can flow.
2. Ease
3. Hindrance
4. Impedance
5. Halting
6. Total resistance in a parallel circuit is always \_\_\_\_\_\_\_\_\_\_\_ than any branch resistance.
7. More
8. Less
9. Which branch dissipates the most power, the one with the largest or smallest resistance?
   1. Largest
   2. Smallest
10. If a fourth resistor is added in parallel to a three-resistor parallel circuit, the total current will?
    1. Increase
    2. Decrease
    3. Stay the same
11. In question #4, what will be the effect on total power?
    1. Increase
    2. Decrease
    3. Stay the same
12. What is the resistance if the resistor’s conductance is 250μS? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. Calculate and record the values for the parallel circuit below.



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | P | I | R | E |
| R1 |  |  |  |  |
| R2 |  |  |  |  |
| R3 |  |  |  |  |
| Total |  |  |  |  |