Title: **Combination Circuits** Test: 6

Course: Electrical Applications Unit: Electrical Theory CLO: 3

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

**Objectives**

1. Student shall calculate various electrical quantities for a combination circuit based on the Ohm’s Wheel.

**Assessment**

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

**Circuits**



Where

ES = 6V, R1 = 240Ω, R2 = 720Ω, R3 = 1.4kΩ, R4 = 160Ω

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | P | I | R | E |
| R1 |  |  |  |  |
| R2 |  |  |  |  |
| R3 |  |  |  |  |
| R4 |  |  |  |  |
| Total |  |  |  |  |



Where

ES = 21V, R1 = 380Ω, R2 = 2.1kΩ, R3 = 4.4kΩ, R4 = 8kΩ, R5 = 225Ω, R6 = 15Ω

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | P | I | R | E |
| R1 |  |  |  |  |
| R2 |  |  |  |  |
| R3 |  |  |  |  |
| R4 |  |  |  |  |
| R5 |  |  |  |  |
| R6 |  |  |  |  |
| Total |  |  |  |  |

1. A *complex* combination circuit can also be thought of as a;
   1. A series circuit that has a parallel component inside of it.
   2. A parallel circuit that has a series component inside of it.
   3. Any combination of a series circuit and a parallel circuit.
   4. None of the above
2. Regardless of the type of circuit, series-parallel, parallel-series or complex combination circuit, total power will always be the sum of individual component power?
3. True
4. False