UNIT: ELECTRICAL CIRCUITS

ACT-Based Science: Series vs. Parallel Circuits – Efficiency Test (Experimental Design & Hypothesis Testing) Answer Key

**ACT-Style Multiple Choice Question:**

* A student observes that light bulbs in a **series circuit** appear dimmer than those in a **parallel circuit**. What is the most likely explanation?
1. The series circuit provides more voltage to each bulb.
2. The parallel circuit provides each bulb with full voltage from the power source.
3. The current in the series circuit is higher than in the parallel circuit.
4. The series circuit allows for independent bulb operation.

**(Correct Answer: B – In a parallel circuit, each bulb receives the full voltage, making them brighter.)**