



## 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?
  - A. The series circuit provides more voltage to each bulb.
  - B. The parallel circuit provides each bulb with full voltage from the power source.
  - C. The current in the series circuit is higher than in the parallel circuit.
  - D. The series circuit allows for independent bulb operation.

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