**UNIT D Electricity - PAT Qs - Curriculum Outcomes**

(Used 2006, 2008, 2010 & 2012 released exams)

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| **General topic of PAT Question** | **Number of times on 4 exams** | **Outcome it matches**  **(knowledge outcomes)** |
| Current, Voltage, Resistance analogy (water or traffic) | 4 |  |
| Circuit diagram (circuit breaker, parallel, switches, variable resistor) | 5 |  |
| Wet Cell (zinc & copper electrode and acidic electrolytes) | 4 |  |
| Static Electricity | 3 |  |
| Efficiency calculations (often NR, energy lost due to heat/friction) | 3 |  |
| Fossil fuels/renewable (biomass, hydroelectric, natural gas, coal, oil) | 3 |  |
| Electromagnet | 3 |  |
| Resistance, Energy and Power formulas | 4 |  |
| Resistance (length and width of wire, in series circuit, brightness of bulbs in series vs parallel, tungsten filament, variable resistor) | 7 |  |
| Thermocouple | 2 |  |
| Energy transformations (gravitational, mechanical, electrical, thermal [common energy loss]) | 2 |  |
| AC/DC | 1 |  |
| Microcircuits | 1 |  |