PHY100S – The Magic of Physics – Pre-Class Quiz #7

When light shines on a metal electrons are ejected from the surface. This is:

- A. Proof that both light and electrons have a wave aspect.
- B. An example of the psi field of the electron.
- C. An example of quantum indeterminacy.
- D. The photoelectric effect. **CORRECT**

When de Broglie proposed that electrons have a wave aspect, Einstein immediately:

- A. Rejected the idea as "rubbish."
- B. Said that God does play dice with the universe.
- C. Was impressed and supportive of the idea. CORRECT
- D. Performed the two slit interference experiment for electrons.

The Born interpretation of Quantum Mechanics proposed that:

- A. There is no Quantum World.
- B. Every measurement bifurcates reality into parallel worlds.
- C. Reality does not exist.
- D. de Broglie's wave is a wave of probability. CORRECT