Name _____

Quantum Entanglement: The Magic Link in Quantum Computing

Multiple Choice Questions

1. What is quantum entanglement?

a) The ability of particles to exist in multiple states simultaneously

b) The spooky action at a distance

c) The process of entangling classical bits

d) The ability of particles to communicate with each other

2. How does quantum entanglement affect the properties of entangled particles?

a) It leaves their properties completely independent.

b) It changes their properties only when measured.

c) It causes their properties to become intertwined.

d) It reduces the uncertainty of their properties.

3. In quantum computing, what is the term used for particles like electrons with opposite spins becoming entangled?

a) Quantum teleportation

b) Superposition

c) Quantum correlation

d) Quantum entanglement

4. How does entanglement contribute to the power of quantum computers?

a) It allows qubits to exist in a single state.

b) It makes quantum computers faster than classical computers.

c) It enables qubits to explore multiple possibilities simultaneously.

d) It reduces the need for quantum operations.

5. What is quantum teleportation, and how does it relate to quantum entanglement?

a) It is the process of teleporting physical objects using quantum particles.

b) It is the transfer of quantum information from one qubit to another, relying on entanglement.

c) It is the instant communication between two entangled particles.

d) It is a form of classical communication unrelated to entanglement.

© ReadingDuck.com