

1. What does the De Broglie Hypothesis propose about particles?

- A) Particles have no properties
- B) Particles have wave-like properties**
- C) Particles are always at rest
- D) Particles can only exist in one state

2. What is the speed of light according to Einstein's Special Theory of Relativity?

- A) Variable depending on the observer
- B) Constant and absolute**
- C) Dependent on the medium
- D) Always equal to zero

3. What experiment challenged the classical assumptions of the aether hypothesis?

- A) Cavendish Experiment
- B) Michelson-Morley Experiment**
- C) Double-Slit Experiment
- D) Photoelectric Effect

4. What is the nature of quantum mechanics compared to classical mechanics?

- A) Deterministic and realistic
- B) Probabilistic**
- C) Always accurate
- D) Only applicable to large objects

5. What does Maxwell's equations describe?

- A) Only electric fields

- B) Only magnetic fields
- C) Electric and magnetic fields**
- D) Quantum mechanics