

Q1. Explain Newton's First Law of Motion in detail. Discuss the concept of inertia and provide two real-life examples where this law is applicable.

Q2. Derive the expression for Ohm's Law. Explain the relationship between voltage, current, and resistance with suitable examples.

Q3. Define Artificial Intelligence. Explain the difference between Narrow AI and General AI with examples.

Q4. Describe the working principle of a transformer. Explain the importance of mutual induction in its operation.

Q5. What is Binary Search Algorithm? Write the steps involved and analyze its time complexity.