

- **Quantum Computing :**

Quantum computation harnesses the principles of quantum mechanics to perform complex calculations beyond the reach of classical computers.

- **Key concept of quantum Computing :**

The fundamental unit of information in quantum computing .

- **Key principles of quantum computing :**

1. **Superposition :**

A qubit can exist in combination both of 0 and 1 state simultaneously, allowing quantum computing.

2. **Entanglement :**

Two or more qubits become linked show that they share the same fate regardless of the distance separate them.

3. **Quantum Interference :**

The unique behaviour of a qubits due to superposition, to influence the probability of it collapsing into a specific state .

- **How do quantum computers work?**

primary difference between classical and quantum computers is that quantum computers use qubits instead of bits. While quantum computing does use binary code, qubits process information differently from classical computers.

- **Quantum mechanics :**

Quantum mechanics is the fundamental physical theory that describes the behavior of matter and of light; its unusual characteristics typically occur at and below the scale of atoms.

- **What are examples of quantum computing?**

A real-life example of quantum computing is drug discovery. By making it easier to model the behavior of proteins, quantum computing can help researchers understand existing drugs and create new drugs to treat diseases like Alzheimer's and cancer.