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BSIT 3G

FINITE STATE SIMULATION- it is a technique used in computer science to model systems that have a limited amount of states and can change between them under particular rules or conditions. It demonstrates and understands how things evolve in systems having a finite number of possible states through time.

EXAMPLES:

LIGHT SWITCH- turning on the switch involves flicking it up or down, causing a light switch to switch between its two states, on and off.

ELEVATOR- it's like moving up or moving down when it's in transit, idle when it's waiting to receive a call, and door open or door closed when it reaches an exact floor. When an elevator reaches its destination floor or when a passenger presses a button to call for it, a transition takes place.

STATE TABLE- it is similar to a road map, showing how a system changes between states in anticipation of specific circumstances or causes. It can be a useful tool for implementing and analyzing different systems and makes it easier to understand how the system operates.

EXAMPLE:

Current State	Condition	Next State
Off	Switch toggled	On
On	Switch toggled	Off

- This example is a simple state chart explaining how to replicate a light switch. When the switch is flipped, it goes from Off to On, and back again.

STATE DIAGRAM- it is a diagram that helps visualise a system's behavior, which improves comprehension of its operation and the connections between its many states. Fields including computer science, engineering, and process management, these are helpful for constructing, assessing, and analyzing systems.

EXAMPLE:

INTERNET CONNECTION- there are three states like, limited connectivity, disconnected, or connected. Changes can happen when a device loses signal or when it connects to a network. The state diagram would show how network events change the connection status.