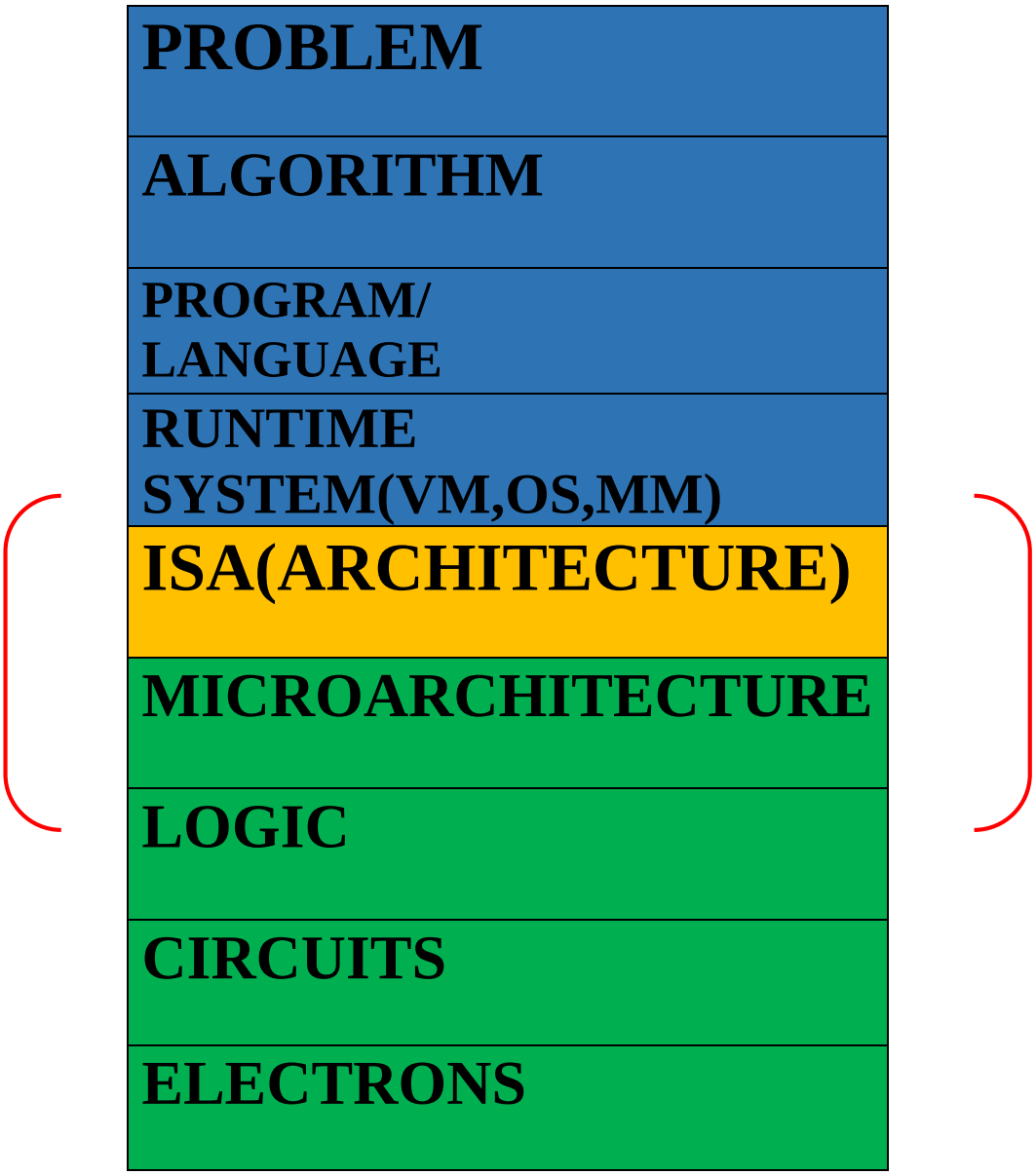
<Question>

 # How do you insure the problem is solved by the electrons?

--- Answer

When a problem is given to a computer to get accurate results it goes through different phases before the output is displayed or given.

This phase is called computer architecture


PROBLEM
ALGORITHM
PROGRAM/
LANGUAGE
RUNTIME
SYSTEM(VM,OS,MM)
ISA(ARCHITECTURE)
MICROARCHITECTURE
LOGIC
CIRCUITS
ELECTRONS

PROBLEM

-Problem is the task given to the computer in sight of gaining an output by the user.

-Set of task

ALGORITHM

-It is a procedure for the computer to understand the problem and how to solve it.

-Example it acts as a human brain that knows the process of solving problems if resources are available.

PROGRAM/LANGUAGE

-After the algorithms a programmer writes certain sets of instructions following programming rules it is called program/ language.

RUNTIME SYSTEM

-After the program is written and inserted the given language is translated into machine codes by a compiler or interpreter.

-The core of transformation begins from this phase.

ISA ARCHITECTURE

-This is embedded programming language of CPU in itself.

- It is CPU's function and capabilities on the basis of what programming language it can process.

MICROARCHITECTURE

-Micro architecture is small architecture built inside of microprocessor.

-It help in execution of program it is combined implementation of register's, memory, ALU etc.

-This architecture help define the data path data processing, data storing as well as how they should be implemented in ISA.

LOGIC

-Logic can also be defined as gate way through which the processed information passes.

-All together there are seven logic gates

CIRCUITS

-A circuit is a path for a electron to flow for the computer to generate output.

-A circuit contains various gates Logic gates.

ELECTRONS

-The subatomic particles that carries information from one part of computer to the other is electrons.

-Electrons pass through circuits to take and provide information.

Question 2

Difference between computer architecture and computer organization.

ANS

Computer architecture	**Computer organization**
Computer architecture explains what computers should do.	computer organization explains how a computer should work.
Computer architecture deals with high level designs.	Computer organization deals with low level design.
ISA is a computer architecture	**Microarchitecture** Is a computer organization
Computer architecture is designed first.	Computer organization Is designed later