① Think about some computational scenario & sort these computational needs according to which should be used? Microprocessor on microcontroller.

Microprocessor is a controlling unit of a micro computer, on a small chip that capable of performing ALU (Arithmetic Logic Unit) operation and communicating with the other devices connected to it.

Some popular example of the microprocessor are :-

⇒ Intel core i3, i5, i7
⇒ AMD Athlon
⇒ Broadcom (Raspberry Pi)
⇒ Pentium

Microprocessor are not made for specific task but they are required where task are complex and tricky like development of software and other application that required high memory and where

input, output are not defined. It may also be called heart of a computer system.

A microcomputer made on a single semiconductor chip is called single chip microcomputer. Since, single chip microcomputer are generally used in control application, they also are called microcomputer.

In other words, microcontroller contains all the essential components of a microcomputer such as,

CPU
RAM
ROM
I/O lines

2. What is the difference between Microprocessor and Microcontroller.

A list of difference between Microprocessor and Microcontroller are given below :-

Microprocessor	Microcontroller
① Microprocessor acts as a heart of computer system.	① Microcontroller acts as a heart of embedded system.
② It is used for big applications.	② It is used to execute single task within an application.
③ It cannot be used in compact system. Therefore, microprocessor is inefficient	③ It can be used in compact. Therefore, Microcontroller is more efficient.
④ It is mainly used in personal computers.	④ It is used in washing machine, air condition, MP3 player etc.

[3] Explain Moore's Law:

Moore's law refers to Gordon Moore's perception that the number of transistor on a microchip doubles every two years.

In other words, Moore's law state that, we can expect the speed and capability of our computer to increase every couple of years.

[4] What is the difference between RISC and CISC processor.

→ The difference of RISC and CISC are as follows:-

RISC	CISC
① A large number of instruction are present in the architecture.	② Very few instruction are present. The number of instruction is generally less than 100.

② Multiple formats are supported for specifying operands	② Simple addressing formats are supported.
③ CISC supports Array.	③ RISC does not support on array.
④ Condition codes are used	④ No condition codes are used.