### Research work 2

- 1. 5 microcontroller supplier companies-
  - 1. NXP
  - 2. Silicon labs
  - 3. Microchip
  - 4. Texas instruments
  - 5. Panasonic
- 2. 5 microprocessor supplier companies
  - 1. Amulet technologies
  - 2. Cypress semiconductor
  - 3. On semiconductor
  - 4. EPSON
  - 5. GHI electronics

#### 3. What is SOC

An SoC in an embedded system is a chip that includes all the components that allow the chip to perform a specific function or action for the embedded system.

The components include

- Programmable processor
- Memory
- Input/output interfaces
- Ethernet shield

#### Examples

- 1. Smartphones
- 2. Tablets
- 3. Smart tv
- 4. Smart watch

## 4. Opcode

Is is a type of instruction to perform some operation like ADD, SUB, MUL, MOV.

**EXAMPLES** 

MOV C,A

# **HEXCODE**

Hexadecimal Number System uses 16 digits from 0 to 9 and A to F. The alphabets A to F represent decimal numbers from 10 to 15. The base of Hexadecimal numbers system is 16. There are sixteen numerals required.

- 5. Advantages of Digital system over Analog system
  - 1. Digital circuits are more reliable.
  - 2. Digital circuits are easy to design and cheaper than analogy circuits.
  - 3. The hardware implementation in digital circuits, is more flexible than analogy.
  - 4. Digital signals can convey information with less noise, distortion, and interference.
  - 5. Power consumption in digital system is less as compared to Analog system.