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Q1] Convert decimal number 43 in Hexadecimal and BCD number system

$$\Rightarrow \text{i] } (43)_{10} = (?)_{16}$$

$$\Rightarrow \begin{array}{c|c|c} 16 & 43 & \\ \hline & 11 & 2 \uparrow \\ & & 11 \end{array}$$

$$\therefore (43)_{10} = (B2)_{16}$$

$$\text{ii] } (43)_{10} = (\underline{0100} \underline{0011})_{BC}$$

Q2] Add $(8899)_{10}$ & $(7766)_{10}$ in BCD

$$\Rightarrow \begin{array}{rcll} 8899 & = & 1000 & 1000 & 1001 & 1001 \\ 7766 & = & 0111 & 0111 & 0110 & 0110 \end{array}$$

$$\begin{array}{rcll} 8899 & \Rightarrow & 1000 & 1000 & 1001 & 1001 \\ + 7766 & & 0111 & 0111 & 0110 & 0110 \\ \hline & & 1111 & 1111 & 1111 & 1111 \end{array} \Rightarrow BCD$$

3. Compare computer Architecture and Computer Organisation

⇒

Computer Architecture

- ① It deals with the way hardware components are connected together to form a computer system.
- ② It acts as an interaction between hardware & software.
- ③ It provides the understanding of functionalities at system level.
- ④ Architecture expresses in terms of instructions, addressing modes and registers.
- ⑤ While designing a computer system architecture is considered first.

Computer Organisation

- ① It deals with the structure and behaviour of computer system as seen by user.
- ② It deals with the components level of a connection in a system.
- ③ It explains the exact arrangement of units in the system and their interconnection.
- ④ Organisation expresses realization of architecture.
- ⑤ An organisation is done on the basis of architecture.