

# BCA Hons. Degree Part - I

Subject : IBM PC

## Topic – History of Microprocessor

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# History of Microprocessor

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- A microprocessor is a multipurpose, programmable, clock driven register and ALU (Arithmetic and Logic Unit) based electronic device. It reads binary instructions from a storage device called memory, accepts binary data as an input and process data according to instructions read, and provides results as an output.

# History of Microprocessor

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- ❑ The world's first microprocessor, the Intel 4004, was a 4-bit microprocessor.
- ❑ A 4-bit microprocessor means the microprocessor can process 4-bit word in one cycle. It has 12-bit address lines to access 4096 4-bit wide memory locations. The 4004 microprocessor has only 45 instructions.
- ❑ The Intel released the 4040, as updated version of 4004 with enhancement in speed, and without any improvement in word length and memory size.

# History of Microprocessor

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- ❑ In 1971 announced the 8008, 8-bit and faster version of 4004. This version came up with expanded memory size up to 16 kbytes and additional instructions to make total of 48 instructions. (A byte is 8-bit binary number and a K is 1024).
- ❑ In 1974 Intel came out with 8080 was a considerable improvement over its predecessors. A six month later Motorola corporation announced its 8-bit processor MC6800. Then Zilog and so on.
- ❑ In 1977, Intel introduced updated version of 8080-8085.

# History of Microprocessor

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- ❑ The next generation was 8086 processor, a 16-bit processor, with advanced architecture and instruction set. At the same time Intel introduced processor 8088. The 8088 is an 8-bit version of the 8086 which has fewer data lines but retains all of the processing features of the 8086. In 1983 the next version was announced, the 80186/88 very similar to 8086/8088 pair.
- ❑ The 80186/88 included many useful peripheral I/O functions as an integral part of the microprocessor.

# History of Microprocessor

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- ❑ The 80186/88 included many useful peripheral I/O functions as an integral part of the microprocessor.
- ❑ After 80186/88, Intel has announced 80286, which is 16-bit processor like 8086. The 80286 was the first family member designed specifically for use as a CPU in a multi-user microcomputer.
- ❑ In 1986, the next advanced processor, the 80386DX, was introduced.

# History of Microprocessor

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- ❑ It is an 32-bit processor with 32-bit register set, address bus and data bus.
- ❑ During 1988, an "economy version" of the 80386, called the 80386SX was introduced by Intel.
- ❑ Early in 1989, Intel introduced the 80486DX, the more highly integrated microprocessor with built-in coprocessor. Meanwhile, Intel has also developed step-down version 80486SX (without coprocessor and lower clock speed).
- ❑ The Pentium, introduced in 1993, was similar to the 80386 and 80486 microprocessors. It contained larger internal cache and data bus width is extended to 64-bit.

thank you

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