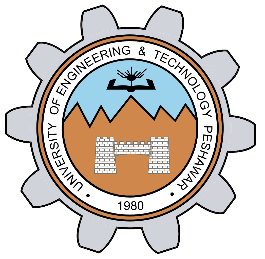
**EXPLAIN CHANGES IN INTEL CORE PROCESSORS**

**(1ST GEN-11TH GEN) AND HISTORY**

**OF STORAGE MEDIA**

**LAB # 01**



**Fall 2021**

**CSE101L Computer Fundamentals Lab**

Submitted by: **Ali Asghar**

Registration No. :21PWCSE2059

Class Section: **C**

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”



Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Submitted to:

**Engr. Abdullah Hamid**

November 27, 2021

Department of Computer Systems Engineering

University of Engineering and Technology, Peshawar

**Q 1: Explain Changes in Generations of Intel Core Processors.**

**Ans:** **1st Generation Intel Processors – Nehalem**

Nehalem was the Intel processor micro-architecture which was the successor to the initial Core architecture which had certain limitations like inability to increase the clock speed, inefficient pipeline, etc.

**2nd Generation Intel Processors – Sandy Bridge**

Sandy Bridge micro-architecture was introduced in 2011. Sandy Bridge uses the 32-nanometer process as opposed to 45 nm used in Nehalem.

**3rd Generation Intel Processors – Ivy Bridge**

Introduced in September 2012, Ivy Bridge processors use the 22-nanometer process as opposed to 32 nm used in Sandy Bridge..

**4th Generation Intel Processors – Haswell**

Haswell was released by Intel in June 2013. It uses the same 22-nm process as Ivy Bridge. The performance improvement of Haswell as compared to the Ivy Bridge is from 3% to 8%.

**5th Generation Intel Processors – Broadwell**

Broadwell was released by Intel in 2015. It uses 14-nm process technology which is 37% smaller in size than its predecessors.

**6th Generation Intel Processors – Skylake**

Intel introduced Skylake, the 6th generation processors in 2015. Skylake is a redesign of the same 14-nm technology which was introduced in Broadwell, the 5th generation architecture.

**7th Generation Intel Processors – Kaby Lake**

Intel’s 7th generation processors, codenamed Kaby Lake, were introduced in 2016. It uses a 14-nm process architecture.

**8th Generation Intel Processors – Kaby Lake R**

The details are the same as mentioned in the 7th Generation Intel Processor but some 8th generation chipsets have support for DDR4-2666 RAM but lack DDR3L RAM support.

**9th Generation Intel Processors – Coffee Lake**

Coffee Lake processors were introduced by Intel in late 2017. With this architecture, Intel Core i9 processors were introduced.

**10th Generation Intel Processors – Cannon Lake/Ice Lake**

Cannon Lake, Intel’s 10th generation architecture, comes with an all-new 10-nm technology. It was released in late 2017 but production properly started in 2018.

**11th Generation Intel Processors – Tiger Lake**

The 11th generation Intel, Tiger Lake, is yet to be released. They will be the third generation of 10-nm transistor technology.

**Q 2: Explain the history of storage media.**

* 1890 Punch Cards
* 1932 Magnetic Drum
* 1947 Williams-Kilburn Tube
* 1951 Magnetic Tape Drive & Magnetic Core
* 1956 Hard Disk Drive (HDD)
* 1967 Floppy Disk
* 1982 Compact Disk
* 1994 Zip Drive
* 1995 Digital Video Disc (DVD)
* 1999 SD Card & USB Flash Drive
* 2003 Blu-Ray Optical Disc
* 2006 Cloud Data Storage