**INTRODUCTION**

*The first electronic computer was designed and built at the University of Pennsylvania based on vacuum tube technology. Vacuum tubes were used to perform logic operations and to store data.*

*Generations of computers has been divided into five according to the development of technologies used to fabricate the processors, memories and I/O units.*

**GENERATION OF** **COMPUTER**  *A generation refers to the state of improvement in the development of a product. This term is also used in the different advancements of computer technology. With each new generation, the circuitry has gotten smaller and more advanced than the previous generation before it. As a result of the miniaturization, speed, power and memory of computers has proportionally increased. New discoveries are constantly being developed that affect the way we live, work* *and play.*

**SECOND GENERATION OF COMPUTERS**

*The computers built in 1950s and 1960 are considered the 2nd generation computers. These computers make use of the transistors invented by Bell Telephone laboratories and they had many of the same components as the modern day computer. For instance,2nd generation computer typically had a printer, some sort of tape or disk storage, operating systems, stored programs, as well as some sort of memory. These computers were also generally more reliable and were solid in design.*

**Transistors**

*A transistor computer is a computer which uses discrete transistors instead of vacuum tubes. A “second generation” of computers, through the late 1950s asnd 1960s featured board filled with individual transistors and magnetic memory cores. They were first developed in 1947.*

**USES OF SECOND GENERATION COMPUTER**

* *Throughout the early 1960’s, there were a number of commercially successful second generation computer used in business, universities, and government companies such as Burroughs, Control Data, Honeywell, IBM, Sperry-Rand, and others*.
* *By 1965,most large business routinely processed financial information using second generation computers.*
* *It gave computers the flexibility* *to finally be cost effective and productive for business use.*
* *A computer could print customer invoices and minutes later design products or calculate paychecks.*

**MAIN CHARACTERISTICS OF SECOND GENERATION COMPUTERS**

1. *Second generation computer machines were based on transistor technology.*
2. *Second generation computers were smaller as compared to first generation computers.*
3. *The computational time of second generation computers was reduced to microseconds from milliseconds.*
4. *Second generation computers were more reliable and less prone to hardware failure. Hence, such computers required less frequent maintenance.*

*5.Second generation computers were more portable and generated less amount of heat.*