**Assignment on History of computer generation**

* **Generation in computer** terminology is a change in technology a computer is/was being used. Initially, the generation term was used to distinguish between varying hardware technologies. Nowadays, generation includes both hardware and software, which together make up an entire computer system.

There are five computer generations known till date. Each generation has been discussed in detail along with their time period and characteristics. In the following table, approximate dates against each generation has been mentioned, which are normally accepted**.**

**Second generation**

The period of second generation was from 1956 to 1963. The second generation computers used transistors as the basic components. The first transistor was developed at bell laboratories on 1947 by William Shockley, John Bardeen and Walter Houser Brattain. The size of transistor is small compared to the size of vacuum tubes. Transistors are made from silicon. Transistors that are made from silicon are less sensitive to temperature, so they cannot easily burn up.

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Second generation computers used magnetic tapes, magnetic disks for secondary memory and magnetic core for primary memory. The input to second generation computers was given through punch cards and the output displayed as printouts. The instructions for computer were written in assembly language.

* **Advantages**

1. *Perform operations* in microsecond.
2. The size of second generation computers is small compared to the size of first generation computers.
3. The cost is low.
4. Maintenance cost of second generation computers is low because hardware failures are rare.
5. Writing instructions in assembly language is easier than writing instructions in machine language.
6. Second generation computers generate less heat compared to the first generation computers.

* **Disadvantages**

1. Air conditioning is required.

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CSE – Semester l