Class 8

Chapter 7

Memory Units and Generations

Fill in the Blanks

- 1. A group of 8 bits is called a Byte.
- 2. A bit or binary digit may be represented by logical **0** and **1**
- 3. RAM stands for **Random Access Memory**.
- 4. ROM stands for **Read Only Memory.**
- 5. Each track of a disk is divided into small portions know as Sectors.

True / False

1. Group of 8 bits is called Giga Byte.	False
2. Main memory is faster than cache memory	False
3. PROM stands for Programmable Read Only Memory.	True
4.EPROM stands for Erasable and Programmable Read Only Memory.	True
5 The surface of disk is divided into a number of invisible concentric circles called tracks	True

Short Answer type Questions :

Q.1 Name the types of Memory.

- Ans: Memory is the storage space in Computer where data and instructions are stored. Memory is divided into a number of small portions which are called Cells. Memory has two types:
 - Internal Memory
 - External Memory

Q2. Name the various types of ROM.

- Ans: MROM : Masked Read Only Memory
 - **PROM** : Programmable Read Only Memory
 - EPROM :Erasable and Programmable Read Only Memory
 - EEPROM :Electrically Erasable and Programmable Read Only Memory

Q3. Write the main features and characteristics of First Generation of Computers.

Ans. 1.Vacuum Tubes were used in the computers .

2. Electromagnetic Relay Memory was used as primary memory .

3.Computers of this generation were very large in size

4.Computers of this generation were also very costly.

5.Computers produce a large amount of heat.

6. These computers were very unreliable.

7.Example: ENIAC, EDVAC, EDSAC, IBM 701, UNIVAC-1

Q4. Name the fourth Generation Systems.

Ans: IBM PC, Apple II, Cray-1, Cray-2, Cray-X/MP

Q5. Write the area which are included in AI.

Ans: AI stands for Artificial Intelligence. It is an upcoming branch of Computer Science which enables computers to think like human beings.

Common areas of AI are:

Robotics

Game playing

Expert System

Understanding Natural Languages

Long Answer type Questions:

Q1. Explain the External Memory.

Ans: External memory is also known as Secondary Memory, Auxiliary Memory, Permanent Memory or Non-Volatile Memory. Data can be stored permanently in this memory. It is a Non-Volatile memory whose contents do not lost even after the switching off the computer system. Contents of Secondary memories are first transferred to main memory, and then CPU can access it. Secondary Memory is cheaper than primary memory, but it is slower in speed as compared to primary memory. Secondary memory is of Magnetic and Optical type. Examples of these memories are Floppy Disk, Hard Disk, CD, DVD etc.

Q2. Explain the characteristics of Secondary.

Ans: 1.It is called Permanent Memory because data can be retained permanently in this memory.

2.It is a Non-Volatile memory whose contents do not lost even after the switching off the computer system.

3.Contents of Secondary memories are first transferred to main memory, and then CPU can access it .it means CPU cannot access this memory Directly.

4. Storage capacity of secondary memory is much more as compared to primary memory.

5. Secondary Memory is cheaper than primary memory.

6.It is slower as compared to primary memory.

7. Secondary memory is of Magnetic and Optical type.

8. Computer can start without Secondary Memory

9.Example : Floppy Disk, Hard disk, Pen drive, CD, DVDetc.



Q3. What are Tracks ?

Ans: The surface of a disk is divided into a number of invisible concentric circles. These circles are called **Tracks**. The number of tracks may vary according to the capacity of the disk. These tracks are numbered from outward to inward starting from zero.



Q4. What are Sectors?

Ans: Each track of magnetic disk is further divided into smaller parts, which are called Sectors. Each track may have 8 or more sectors in it. Each sector has the capacity to store 512 bytes.



Q5. Explain the fifth generation of computers.

Ans: Time period of fifth generation is from 1989 to till now. The computers of this generation uses ULSI(Ultra Large Scale Integration) based Integrated Circuits. Microprocessor chips were used in these computers. These chips have more than 10 million components. The computers of this generation are based on the Artificial Intelligence(AI) software. Main High level languages C, C++, and Java,.Net etc are used in this generation. Internet and Cloud Computing based softwares are mainly used in this generation. There are many types of fifth generation computers, such as Notebook, Desktop, Workstations, and Super-Computers etc. Names of fifth Generation system are IBM notebooks, Pentium PCs, SUN workstations, IBM SP/2, PARAM 10000.