



**Tikrit University**

**College of Computer Sciences & Mathematics**

**Computer Science Department**

**First Stage**

**Lecture -2**

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***Computer Organization***

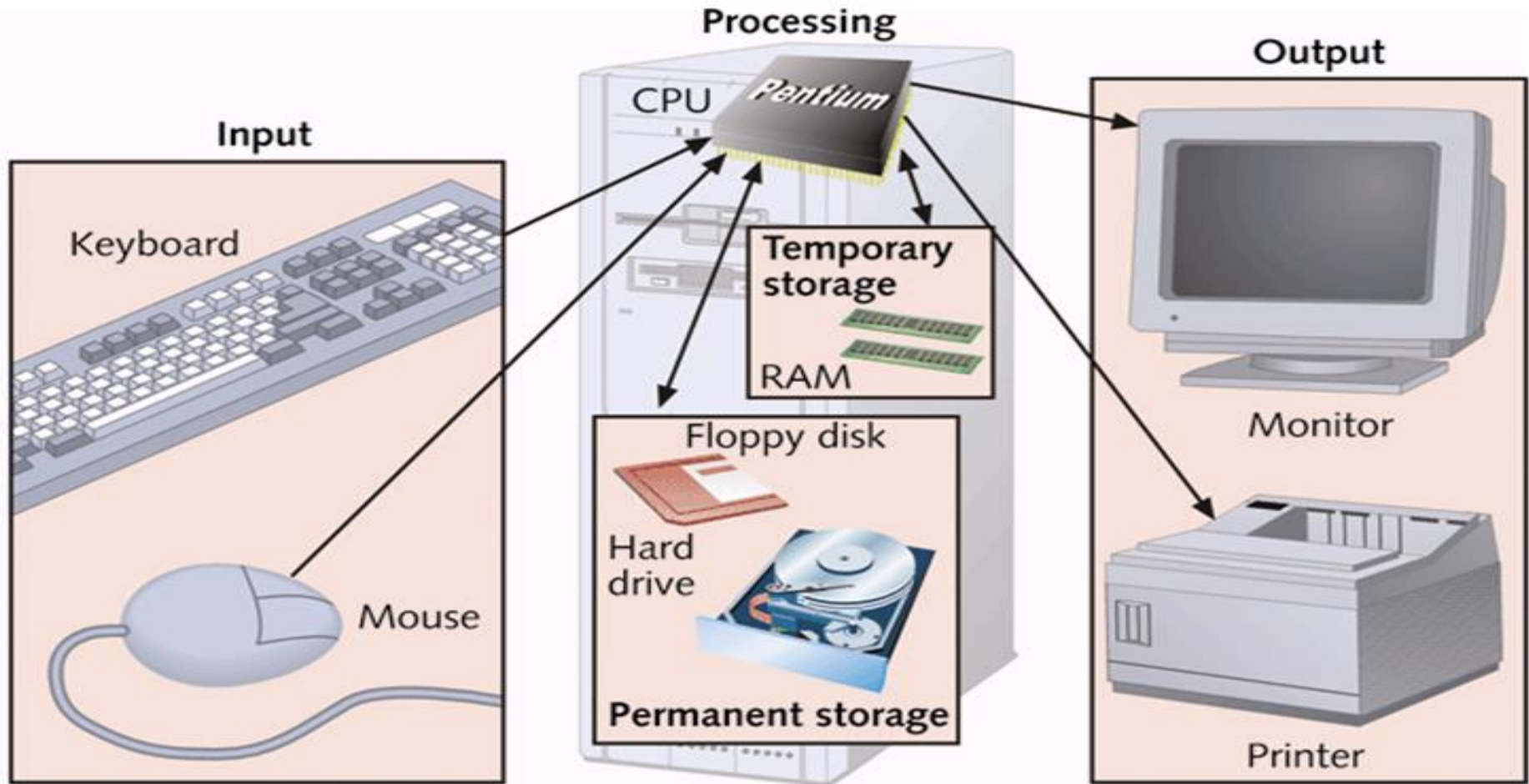
# Computer Functions

2

- **The Computer is an electronic data processing device which able to execute the following functions :**
  - ➡ Takes raw data as input.
  - ➡ Processes the data and converts it into useful information.
  - ➡ Stores the data / instructions in its memory and use them when required.
  - ➡ Generates the output.

# Computer Functions

3



Computer activity consists of input, processing, storage, and output

# Computer Functions

4

- All the processes have a name. Taking in information is called **input**, storing information is better known as **memory (or storage)**, manipulating information is also known as **processing**, and spitting out results is called **output**.
- 1. Input:** Input is the addition or entering of data into the computer. This operation can do by input units , such as keyboard , mouse, microphone or any other unit devices.

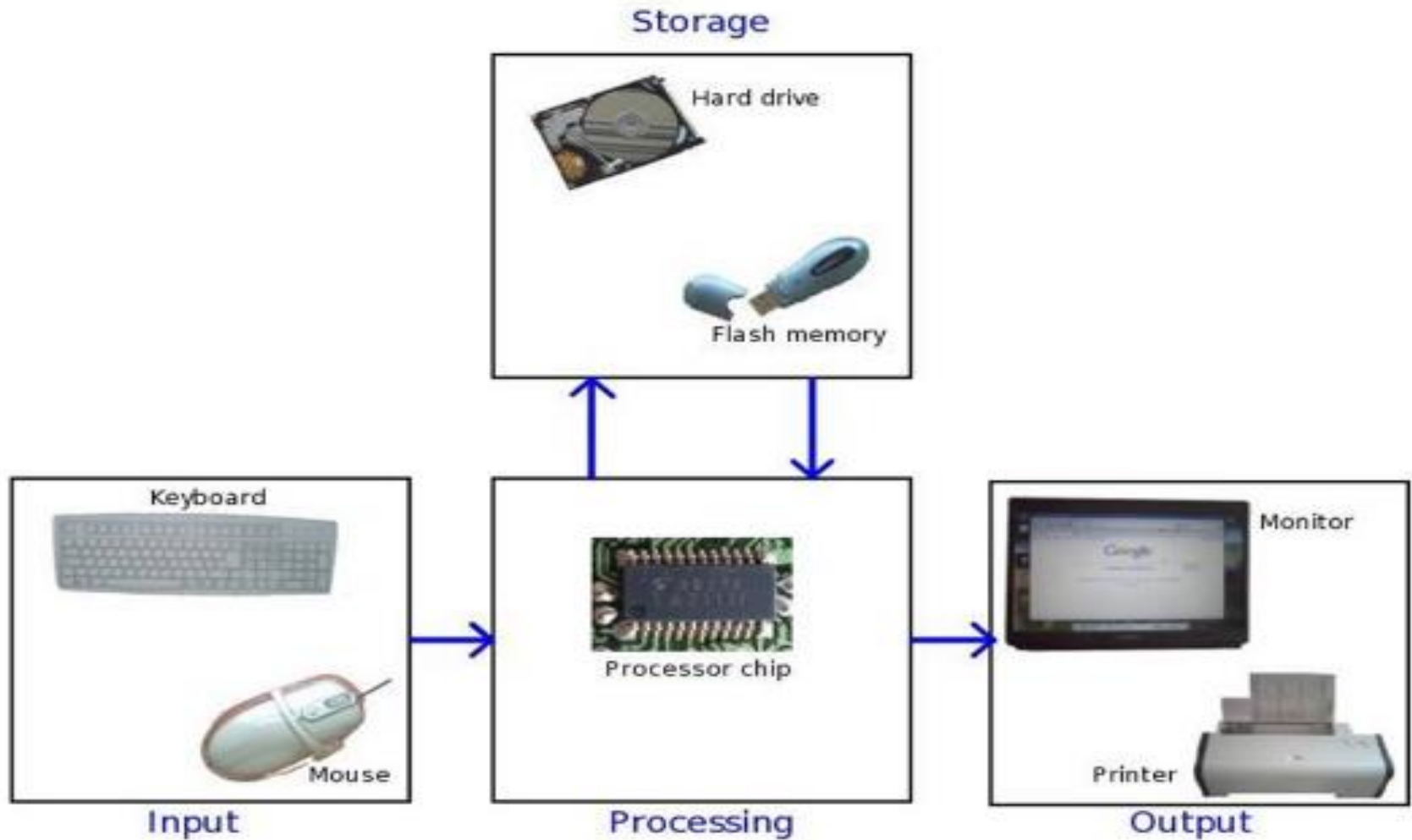
# Computer Functions

5

- 2. Memory / Storage:** is the process of permanently saving data on the computer. This process involves a hard drive of some kind. After data has been processed, it must subsequently be stored on a hard drive as opposed to simply rendered via the RAM, which is not a form of permanent storage.
- 3. Processing :** is the manipulation of information by the computer system. Processing uses the processor or random access memory, otherwise known as RAM. Processing involves the computer's ability to alter data at the command of the programmer's input.
- 4. Output:** is when the computer displays data to be viewed by the programmer or other individuals. Output usually involves the monitor, printer or a form of storage media that data is copied to. Output typically involves some finished product that is separate from the computer system.

# Computer Functions Diagram

6



# Computer Advantages

7

- Computer has made a very important impact on society. It has changed the way of life. People are using computers to perform different tasks quickly and easily. The use of computers makes different task easier. There are many advantages of computer as following :



# Computer Advantages

8

## 1. High Speed

- Computer is a very fast device.
- It is capable of performing calculation of very large amount of data.
- The computer has units of speed in microsecond, nanosecond, and even the picoseconds.
- It can perform millions of calculations in a few seconds as compared to man who will spend many months for doing the same task.

***SPEEDY PC  
SOLUTIONS***





# Computer Advantages

9

## 2. Accuracy

- In addition to being very fast, computers are very accurate.
- The calculations are 100% error free.
- Computers perform all jobs with 100% accuracy provided that correct input has been given.

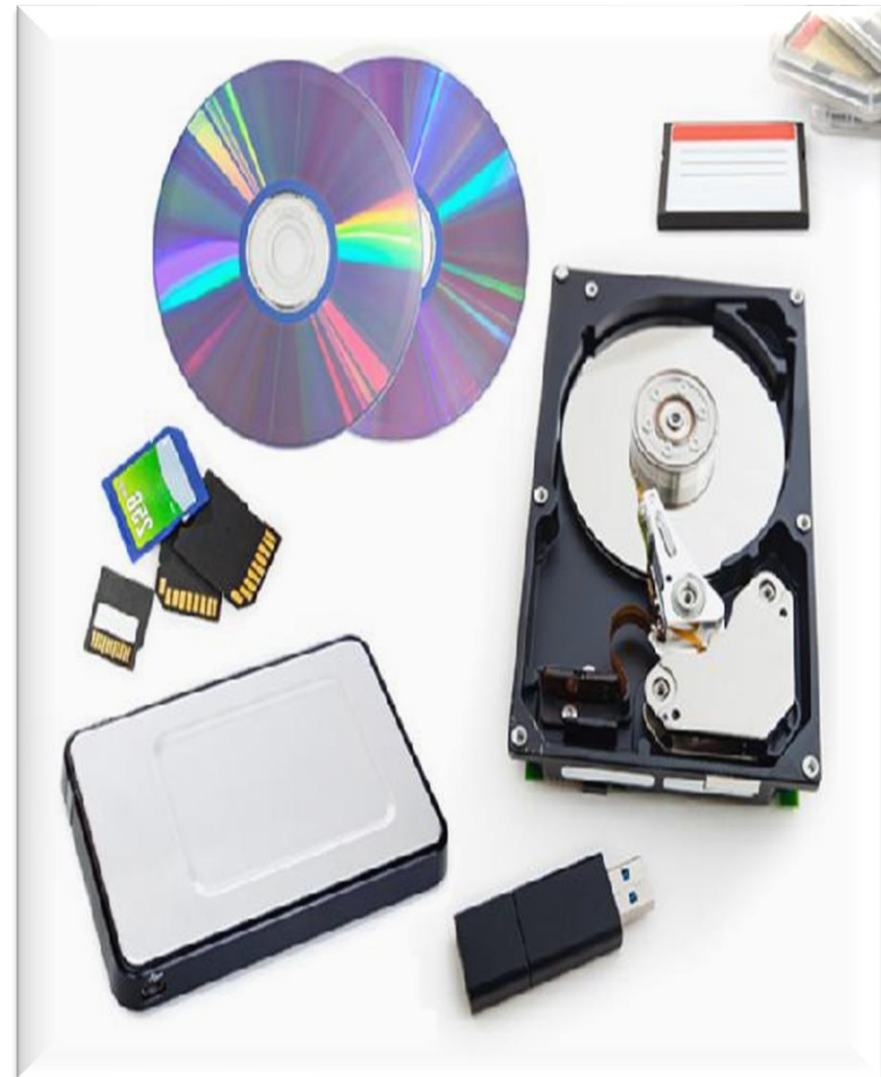


# Computer Advantages

10

## 3. Storage Capability

- Memory is a very important characteristic of computers.
- A computer has much more storage capacity than human beings.
- It can store large amount of data.
- It can store any type of data such as images, videos, text, audio and many others.



# Computer Advantages

11

## 4. Diligence

- Unlike human beings, a computer is free from monotony, tiredness and lack of concentration.
- It can work continuously without any error and boredom.
- It can do repeated work with same speed and accuracy.



# Computer Advantages

12

## 5. Versatility

- ▶ A computer is a very versatile machine.
- ▶ A computer is very flexible in performing the jobs to be done.
- ▶ This machine can be used to solve the problems related to various fields.
- ▶ At one instance, it may be solving a complex scientific problem and the very next moment it may be playing a card game.

# Computer Advantages

13



## 6. Reliability

- ◆ A computer is a reliable machine.
- ◆ Modern electronic components have long lives.
- ◆ Computers are designed to make maintenance easy.

# Computer Advantages

14

## 7. Automation

- Computer is an automatic machine.
- Automation means ability to perform the given task automatically.
- Once a program is given to computer i.e., stored in computer memory, the program and instruction can control the program execution without human interaction.

# Computer Advantages

15

## 8. Reduction in paper work

- The use of computers for data processing in an organization leads to reduction in paper work and results in speeding up a process.
- As data in electronic files can be retrieved as and when required, the problem of maintenance of large number of paper files gets reduced.



# Disadvantages of Computer

16

There are many disadvantage for the computer as following :

## 1. Number of intelligence quotient ( NO. IQ )

- A computer is a machine that has no intelligence to perform any task.
- Each instruction has to be given to computer.
- A computer cannot take any decision on its own.



# Disadvantages of Computer

17

## 2. Dependency

- It functions as per a user's instruction, so it is fully dependent on human being.

## 3. Environment

- The operating environment of computer should be dust free and suitable.

## 4. No Feeling

- Computers have no feelings or emotions.
- It cannot make judgment based on feeling, taste, experience, and knowledge unlike a human being.