

* what is difference b/w General purpose and Embedded system.

General purpose computer

- 1) A computer is a general purpose electronic device used to perform different types of tasks.
- 2) It is designed with a microprocessor which consists of a CPU, storage unit, and I/O units.
- 3) computers have very high processing power.
- 4) computers have high storage capacity.
- 5) computers are generally larger in size.
- 6) computers are more expensive.
- 7) complexity is more.
- 8) computers are used for a variety of applications, such as word processing, web browsing, data analysis, scientific simulation, communication etc.

Ex:- desktops, notebooks, smartphones and tablets

Embedded system

- 1) An Embedded system is a specialized computer system that is used to perform one or a few specific tasks.
- 2) Embedded systems are designed with a microcontroller which consists of a CPU, memory unit and I/O interface on a single IC chip.
- 3) Embedded systems have low processing power.
- 4) Embedded systems have less storage capacity.
- 5) Embedded systems are smaller in size than computers.
- 6) Embedded systems are less expensive.
- 7) complexity is less.
- 8) Embedded systems are used in consumer electronic devices, medical devices, industrial control systems, etc.

* What are Device Drivers?

A device driver is a special kind of software program that controls a specific hardware device attached to a computer.

A device driver is a computer program that operates or control particular type of hardware device.

Types of device drivers

- 1) printer driver software
- 2) scanner driver software
- 3) windows drivers
- 4) Linux drivers.

Functions of device driver

- * initialize the device
- * manage the power requirement
- * manage the log events
- * check input parameters, if they are valid.

Examples

printers, scanners, digital cameras, video Adapters, Sound cards.

* How can hardware understand the codes that we write in embedded systems?

A) → First, all the code the user writes is translated into a set of 0's and 1's by a compiler.

→ The CPU is at the heart of the computer. It can understand only machine language that is codes 0's and 1's.

→ binary code is only language that computer hardware can understand.

What is difference b/w RTOS and GPCS?

Real time operating system

- * These operating system guarantee that critical task be completed within a range of time
- * There is a task deadline
- * it is used for dedicated electronic application

General purpose computer system

- * it can be done multiple task as per requirement
- * There is no task deadline.
- * it is used in general universal application.