

Q1) What is Raspberry Pi?

→ • Raspberry Pi is a small single board computer.

By connecting peripherals like keyboard, mouse, display to the Raspberry Pi, it will act as a mini PC.

- It is used for real time image/video processing, IoT based applications and robotics applications.
- Raspberry Pi is slower than a laptop or desktop but it is still a computer which can provide all the expected features or abilities, at a low power consumption rate.
- Raspbian OS is official OS available for Raspberry Pi.
- Raspbian has GUI which includes tools for browsing, Python programming, games, multimedia, etc.
- Raspberry Pi is more than a computer as it provides access to the on-chip hardware i.e. GPIOs for developing an application.
- By accessing GPIO, we can connect devices like LED, motors, sensors, etc. and can control them too.

Q2) What are the various components of Raspberry Pi Board?

1) HDMI : It is used for transmitting uncompressed video or digital audio data to the computer monitor, digital TV, etc.

2) ~~CSI~~ CSI Camera Interface :

Provides a connection in between Broadcom Processor and Pi camera.

3) Power LED :

It is a red-coloured LED which is used for power indication.

This LED will turn on when power is connected to the Raspberry Pi.

4) Composite Video and Audio Output :
Carries video along with audio signals to the audio-video systems.

5) ACT PWR :
Green LED which shows the SD card activity.

6) DSI Display Interface :
Used for connecting LCD to the Raspberry Pi using a 15-pin ribbon cable.