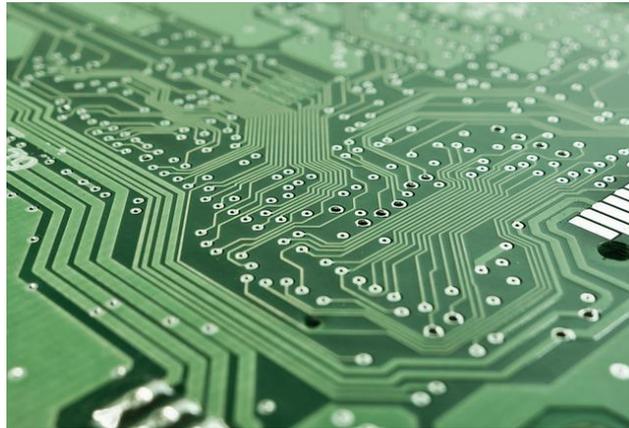


In this post, we will Discuss Electronics and Communication Engineering Interview Questions and Answers. These Questions and Answers will help in your interviews.



## **Electronics and Communication Engineering Interview Questions and Answers**

### **Question 1. Explain Analog and digital communication?**

Answer: There are Two types of communications:

Analog Communication

Digital Communication

#### **Analog Communication-**

The process of taking an audio, data, image, video signal and translating it into electronic pulses which vary in amplitude and phase is known as Analog Communication.

#### **Digital Communication-**

The process of Breaking the signal into a binary format where the audio, data, image, video signal is represented by series of “0”s and “1”s is known as digital communication.

### **Question 2. What is the difference between the capacitor and the battery?**

Answer: The Energy stored in a capacitor is in Electrostatic form while the Energy stored in a battery is in chemical form. The main Difference between the capacitor and the battery is that the dis

charge time of the battery is more than the capacitors.

### **Question 3. What is CDMA?**

Answer: CDMA stands for “Code Division Multiple Access”.

Unlike the GSM and TDMA technologies, CDMA transmits over the entire frequency range available. In the other wireless transmission techniques, the bandwidth is shared between the users but in CDMA, full bandwidth is allotted to every user, this is done by assigning different codes to each user.

#### **Question 4. WHAT IS RECTIFICATION?**

Answer: RECTIFICATION-  
RECTIFICATION IS THE PROCESS OF CONVERTING PULSATING AC VOLTAGE INTO DC VOLTAGE.

When AC is converted to DC, there is always an amount of AC that is not converted to DC is known as ripple. To convert this Pulsating DC voltage into Pure DC Voltage, we use filters.

#### **Question 5. What are Drift and Diffusion currents?**

Answer: **Drift Current-**

Drift current is the electric current and is due to the applied electric field. When an electric field is applied across a semiconductor material, Holes move in the direction of electric field while the electrons move in the opposite direction of electric field. This current is produced due to the flow of charge carriers.

#### **Diffusion Current-**

Diffusion current is the current caused by diffusion of charge carriers. Diffusion is the process in which charge carriers (electrons and holes) move from a high concentration region to a low concentration region.

#### **High Concentration region:**

The region in which more electrons are available is known as a high Concentration region.

#### **Low Concentration region:**

The region in which fewer electrons are available is known as a low Concentration region.

**Diffusion Process occurs in the non-uniformly doped semiconductor.**

#### **Question 6: what are active and Passive Components?**

Answer: **Active Components-**

The components or devices which require an external source for their operation are known as Active Components.

For Example- Diode, Transistor, SCR

#### **Passive Components-**

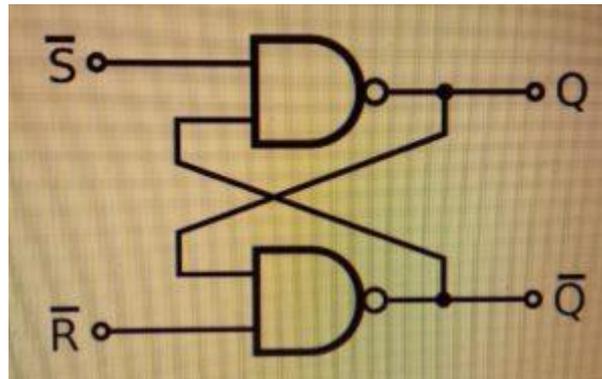
The Components or devices which do not require an external source for their operation are known as Passive Components.

For Example- resistor, RTD, Thermocouple, capacitor, inductor

**Question 7. What is the basic difference between Latches and Flip flops?**

Answer: **Latch:**

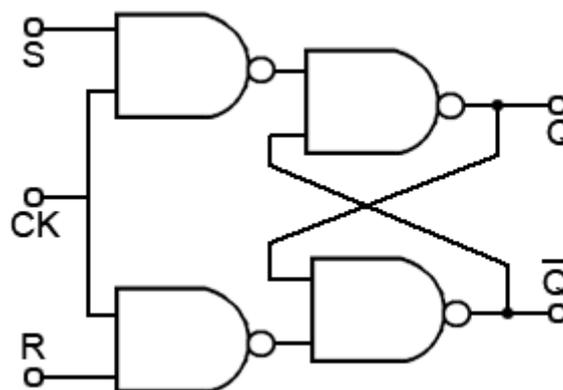
A Latch is a circuit element that changes the output based on the current input, previous input, and previous output. Latches are asynchronous that means outputs can change as soon as the inputs change. Latches are level triggered. Latches are used as Temporary buffers.



**Flip Flop:**

The flip-flops are built from latches and it includes an additional clock signal apart from the inputs used in the latches.

A flip-flop is Synchronous. Flip-flop only changes state when a control signal goes from high to low or low to high. Flip Flops are edge-triggered. Flip-flops are used as registers.



**Question 8. What do you mean by an ideal voltage source?**

Answer: A Voltage Source with **Zero Internal** resistance is called as Ideal Voltage Source.

**Question 9. What are the different types of filters?**

Answer: **Types of filters-**

Low pass filter

High pass filter

Bandpass filter

Passive filter

Active filter

**Question 10. What do you mean by half-duplex and full-duplex communication? Explain briefly.**

Answer: **Half- duplex communication-**

Half Duplex Communication is the two-way communication. The limitation for Half Duplex communication is that only one can communicate at a time. Example: -walky-talky.

**Full- duplex communication-**

Full Duplex Communication is also the two-way communication. In Full-Duplex communication, both can communicate simultaneously. Example: -mobile.