

# 42 Lecture - PHY301

## Important Mcqs

**What is the voltage drop across the collector-emitter junction in a BJT when it is operating in the active region?**

- a. approximately zero
- b. approximately 0.2 volts
- c. approximately 0.6 volts
- d. approximately the same as the supply voltage

**Answer: c. approximately 0.6 volts**

**In a common emitter BJT configuration, which of the following currents flow in the collector-emitter loop?**

- a. only the collector current
- b. only the base current
- c. only the emitter current
- d. both the collector and emitter currents

**Answer: d. both the collector and emitter currents**

**What is the purpose of the collector resistor in a BJT circuit?**

- a. to limit the base current
- b. to provide negative feedback
- c. to stabilize the bias point
- d. to provide a load for the transistor

**Answer: d. to provide a load for the transistor**

**What is the typical value of the collector current in a BJT operating in the active region?**

- a. microamps
- b. milliamps
- c. amps
- d. tens of amps

**Answer: b. milliamps**

**Which of the following is true about the direction of the collector current in a PNP transistor?**

- a. it flows from the emitter to the collector
- b. it flows from the collector to the emitter
- c. it flows in both directions
- d. it does not flow in a PNP transistor

**Answer: a. it flows from the emitter to the collector**

**What is the direction of the voltage drop across the collector-emitter junction in a BJT operating in the active region?**

- a. positive on the collector and negative on the emitter
- b. negative on the collector and positive on the emitter
- c. positive on both the collector and emitter
- d. negative on both the collector and emitter

**Answer: b. negative on the collector and positive on the emitter**

**Which of the following is true about the direction of the base current in a BJT?**

- a. it flows from the emitter to the collector
- b. it flows from the collector to the emitter

- c. it flows in both directions
- d. it does not flow in a BJT

**Answer: b. it flows from the collector to the emitter**

**In a common base BJT configuration, which of the following currents flow in the collector-emitter loop?**

- a. only the collector current
- b. only the base current
- c. only the emitter current
- d. both the collector and emitter currents

**Answer: a. only the collector current**

**What is the typical value of the voltage drop across the base-emitter junction in a BJT operating in the active region?**

- a. approximately zero
- b. approximately 0.2 volts
- c. approximately 0.6 volts
- d. approximately the same as the supply voltage

**Answer: c. approximately 0.6 volts**

**Which of the following is true about the direction of the emitter current in a BJT?**

- a. it flows from the emitter to the collector
- b. it flows from the collector to the emitter
- c. it flows in both directions
- d. it does not flow in a BJT

**Answer: a. it flows from the emitter to the collector**