Assignment 1

The due date for submitting this assignment has passed.
All our records have not submitted this assignment.

1. Collector region of BJT is always
   - Inactive
   - Moderately doped
   - Heavily doped
   - Not doped
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - Moderately doped

2. In a properly biased NPN transistor most of the electrons from the emitter
   - Recombine with holes in the base
   - Recombine with holes in the collector
   - Pass through the base to the collector
   - Are crossed by the collector barrier
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - Pass through the base to the collector

3. Which of the following is true for a pnp transistor in saturation region
   - Collector junction is reverse biased and the EJ junction is forward biased
   - Collector junction is forward biased and the EJ junction is forward biased
   - Collector junction is reverse biased and the EJ junction is reverse biased
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - Collector junction is reverse biased and the EJ junction is forward biased

4. A transistor has a DC bias of 200 and 0.5 base current, IB, of 20μA. The collector current IC equals
   - 500 μA
   - 65 A
   - 0 A
   - 0
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - 0

5. The CE amplifier circuit is preferred over CB amplifier circuit because they have
   - Lower amplification factor
   - Larger amplification factor
   - High input resistance and low output resistance
   - None of these
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - Larger amplification factor

6. A common base transistor amplifier has an input resistance of 2000 and output resistance of 1Ω. A signal of 400 mV is applied between emitter and base. Find the voltage amplification. Assume r0 to be one.
   - 80
   - 80
   - 80
   - 40
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - 80

7. A transistor has an Ic of 100mA and Ib of 5mA. What is the value of r0?
   - 750
   - 754
   - 754
   - 796
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - 796

8. In CB configuration, the value of r0 = 0.98 Ω. A voltage drop of 4.9 V is obtained across the resistor of 5 Ω when connected to collector circuit. Find the base current.
   - 0.37 mA
   - 0.37 mA
   - 0.37 mA
   - 0.39 mA
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - 0.39 mA

9. What in the CE characteristic used to prove that the transistor is indeed biased in active mode?
   - IC = βIB
   - IC = βIB
   - IC = βIB
   - IC = βIB
   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - IC = βIB

10. When the transistor said to be saturated
    - when VCOE is very low
    - when VBE is very low
    - when VBE is very high
    - when VCOE is very high
    **No, the answer is incorrect.**
    **Score: 0**
    **Accepted Answers:**
    - when VCOE is very low