

ELECTRONIC DEVICES AND CIRCUITS

WORKSHEET-2: Bipolar Junction Transistor (BJT)

1. What is the left hand section of a junction transistor called?
 - a. Base
 - b. Collector
 - c. Emitter
 - d. Depletion region
2. In a bipolar transistor base collector junction has
 - a. Forward bias
 - b. Reverse bias
 - c. Zero bias
 - d. Zero or forward bias
3. In which region transistor act as a closed switch
 - a. Inverted region
 - b. Active region
 - c. Cut off region
 - d. Saturated region
4. In an NPN transistor, the arrow is pointed towards _____
 - a. Emitter
 - b. Collector
 - c. Base
 - d. None of the above
5. In the Cutoff region, the transistor acts like a _____
 - a. Closed switch
 - b. Open switch
 - c. Amplifier
 - d. None of the above
6. If the emitter-base junction is forward biased and the collector-base junction is reverse biased, what will be the region of operation for a transistor?
 - a. Cut off region
 - b. Saturated region
 - c. Inverted region
 - d. Active region
7. The transfer of a signal in a transistor is _____
 - a. Low to high resistance
 - b. High to low resistance
 - c. Collector to base junction
 - d. Emitter to base junction
8. BJT stands for __
 - a. Bi-Junction Transfer
 - b. Blue Junction Transistor
 - c. Bipolar Junction Transistor
 - d. Base Junction Transistor

9. The doped region in a transistor are ____
 - a. Emitter and Collector
 - b. Emitter and Base
 - c. Collector and Base
 - d. Emitter, Collector and Base
10. Which region of the transistor is highly doped?
 - a. Emitter
 - b. Base
 - c. Collector
 - d. Both Emitter and Collector
11. In an NPN transistor, the arrow is pointed towards_____
 - a. Emitter
 - b. Collector
 - c. Base
 - d. None of the above
12. The largest current flows of a bipolar transistor occurs
 - a. In emitter
 - b. In base
 - c. In collector
 - d. Through emitter- collector
13. The doped region in a transistor are ____
 - a. Emitter and Collector
 - b. Emitter and Base
 - c. Collector and Base
 - d. Emitter, Collector and Base
14. In the saturation region, the transistor acts like a_____
 - a. Closed switch
 - b. Open switch
 - c. Amplifier
 - d. None of the above
15. In which one of the following configuration voltage gains is greater than one?
 - a. Common collector
 - b. Common emitter
 - c. Common base
 - d. None of these

Fill in the Blanks

16. In ICEO What does the subscript CEO mean__
17. The application of CC configured transistor is_____
18. When does the transistor act like an open switch?__
19. The relation between α and β is _____
20. The AC current gain in a common base configuration is____
21. Beta in transistor represents _____
22. Input resistance of common base configuration is_____



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23. In the active state, the emitter-base junction has a higher resistance than the collector-base junction. True| False
24. When does the transistor act like an open switch_____
25. The transistor terminals are_____
26. In CB configuration the current gain of the transistor is_____
27. _____ region is very lightly doped and very thin.
28. In _____ region, emitter-base junction is forward biased and the collector-base junction is reverse biased
29. Common Collector is also called as _____
30. The symbol of NPN transistor is_____