

- Q)A transistor contains three terminal which one was middle one--> **base**
- Q)How many configurations presented in transistor--> **three**
- Q)Total current in CB configuration of a transistor is equal to--> $I_E = I_B + I_C$
- Q)Common current amplification factor α is equal to--> $\alpha = \beta / (1 + \beta)$
- Q)Two diodes connected back to back which device formed--> **Transistor**
- Q)Current entering in to transistor was which terminal--> **emitter**
- Q)Transistor contains how many terminals--> **three**
- Q)Transistor contains how many junctions--> **two**
- Q)Emitter terminal common to both base and collector the configuration is called--> **common emitter**
- Q)In Active region the input and output junctions--> **input junction is FB and output junction RB**
- Q)In Saturation region the input and output junctions--> **input junction is FB and output junction FB**
- Q)In cut off region the input and output junctions--> **input junction is RB and output junction RB**
- Q)Base terminal common to both collector and emitter the configuration is called--> **common base**
- Q)collector terminal common to both base and emitter the configuration is called--> **common collector**
- Q)Common current amplification factor β is equal to--> $\beta = \alpha / (1 - \alpha)$
- Q)Common current amplification factor γ is equal to--> $\gamma = 1 + \alpha$
- Q)disadvantage of a FET is--> **Low gain bandwidth product**
- Q)the D,G,S terminals of JFET are similar to BJT is--> **C,B,E**
- Q)the G,S,D terminals of JFET are similar to BJT is--> **B,E,C**
- Q)the S,G,D terminals of JFET are similar to BJT is--> **E,B,C**
- Q)IGFET is the other name--> **MOSFET**
- Q)In JFET the recombination noise is less because of it is--> **unipolar**
- Q)Which type of transistor was high speed--> **NPN**
- Q)The arrow mark in the symbol of BJT indicates--> **current flow direction**
- Q)The input impedance of FET is--> **very high**
- Q)The output impedance of FET is--> **low**
- Q)The square law device is--> **JFET**
- Q)MOSFET can be used in both enhancement and depletion mode is--> **depletion mode**
- MOSFET**
- Q)JFET can be used as a --> **voltage variable resistor**
- Q)FET is a--> **voltage control device**
- Q)The voltage V_{ds} at which I_d tends to level off in JFET is called--> **pinch off voltage**
- Q)in transfer characteristics the current I_d is--> **decreases**
- Q)Silicon control rectifier contains how many terminals--> **3**
- Q)in SCR the anode to cathode terminals connect between--> **nnpn**
- Q)In SCR the controlled terminal is called--> **gate**
- Q)Zener diode is operated as voltage regulation in--> **reverse bias**

- Q)The channel is formed between the source and drain is _____ FET--> **depletion**
- Q)BI-CMOS is the combination of--> **BJT and CMOS**
- Q)As reverse bias voltage is increased for a diode the width at the junction--> **increases**
- Q)Transistor act as an amplifier in which region--> **active**
- Q)DIAC contains how many layers--> **4**
- Q)Intrinsic standing ratio is term related to--> **UJT**
- Q)The output impedance of FET is--> **low**
- Q)Compared to BJT,JFET is--> **less noise**
- Q)Forward break over voltage symbolically represented as--> V_{boo}
- Q)Intrinsic standing ratio formula of UJT is--> $\mu = RB1+RB2/RB1$
- Q)The characteristic between V_v and V_p is called--> **negative resistance region**
- Q)The characteristic of V_p is called--> **saturation region**
- Q)UJT contains how many terminals--> **3**
- Q)UJT generates which wave form--> **saw tooth**
- Q)In Saturation region the input and output junctions--> **input junction is FB and output junction FB**
- Q)In cut off region the input and output junctions--> **input junction is RB and output junction RB**
- Q)Which type of transistor was high speed--> **NPN**
- Q)The arrow mark in the symbol of BJT indicates--> **current flow direction**
- Q)emitter terminal common to both base and collector the configuration is called--> **common emitter**
- Q)In Active region the input and output junctions--> **input junction is FB and output junction RB**
- Q)Base terminal common to both collector and emitter the configuration is called--> **common base**
- Q)collector terminal common to both base and emitter the configuration is called--> **common collector**
- Q)The voltage V_{ds} at which I_d tends to level off in JFET is called--> **pinch off voltage**
- Q)in transfer characteristics the current $I_{d is}$ --> **decreases**
- Q)disadvantage of a FET is--> **Low gain bandwidth product**
- Q)IGFET is the other name--> **MOSFET**
- Q)In JFET recombination noise is less because of it is--> **unipolar**
- Q)Expand LED--> **light emitting diode**
- Q) $R_{b1}=6$ and $R_{b2}=3$ find intern sic standing ratio--> **0.66**
- Q)Two transistor connected back to back is formed--> **SCR**
- Q)Holding current and latching current presented in which device--> **SCR**
- Q)Expression for I_d in the case of JFET is--> $I_d = I_{dss}(1+V_{gs}/V_p)^2$
- Q)The condition satisfied for zero drift current is--> $0.007[I_d]=0.0022gm$
- Q)Photo transistor is also called--> **photo duo diode**
- Q)Biasing circuit is diving in to how many types--> **3**
- Q)Fixed bias circuit is also known as--> **base biased circuit**
- Q) V_{be} is double when temperature--> **10°c rise intemperature**
- Q)Ac load line is also called--> **Dynamic load line**

- Q) I_{CO} is double when temperature--> **20°C rise in temperature**
- Q) β is double ever how much temperature--> **20°C rise in temperature**
- Q) Stability factor S of a fixed biased circuit was--> **$S = 1 + \beta$**
- Q) The diode used in voltage regulator is--> **Zener diode**
- Q) For better stability of the amplifier circuit value of stability factor S must be--> **1**
- Q) Compared to silicon BJT thermal stability for germanium transistor is--> **poor**
- Q) The function of the photo diode is to convert--> **light signal into electrical signal**
- Q) The units of stability factor S are--> **mhos**
- Q) Sensistors have temperature coefficient--> **+Ve**
- Q) thermistor have temperature coefficient--> **-Ve**
- Q) Fixed bias circuit is also called--> **Base bias**
- Q) when positive terminal connected to p material and negative terminal connected to n side is called--> **forward biased**
- Q) Semiconductor material have positive temperature coefficient of R are called--> **sensors**
- Q) Voltage divider biased circuit is also called--> **universal bias**
- Q) Operating point is also known as--> **Q-point**
- Q) Universal bias is also known as--> **self bias**
- Q) The transition capacitance C_T is inversely proportional to--> **Width of the Depletion layer**
- Q) The oscilloscope, which is used to retain the display for longer times, is--> **dual trace**
- Q) In RC- Phase shift oscillator β value is--> **$\beta=1/29$**
- Q) Oscillator used which type of feed back--> **+Ve**
- Q) Oscillator converts--> **dc to ac**
- Q) For every 100 °C rise in temperature, the reverse saturation current--> **remains same**
- Q) Barkhausen criterion condition--> **$A\beta=-1$**
- Q) Depletion region width increases with reverse bias voltage as--> **decreased**
- Q) The oscillator which employ two capacitor and one inductor in the feedback network is--> **collpitts**
- Q) Wein bridge oscillator frequency range is--> **5hz to 2Mhz**
- Q) The coating material used for blue screen in CRT is--> **Zinc sulphide**
- Q) In Hartley oscillator contains how many inductors and capacitors--> **2,1**
- Q) In colpitts oscillator contains how many inductors and capacitors--> **1,2**
- Q) One condition of oscillator to satisfy as a oscillator--> **360°**
- Q) For ideal trans conductance amplifier what is vale of R_i and R_o --> **$R_i=\infty$ and $R_o=\infty$**
- Q) For ideal voltage series amplifier what is value of R_i and R_o --> **$R_i=0$ and $R_o=\infty$**
- Q) Negative feedback is also called--> **degenerative feed back**
- Q) Johnson noise is due to--> **temperature**
- Q) Wein bridge oscillator circuit minimum gain of amplifier--> **3**
- Q) One character future of crystal is--> **high mass to electric ratio**
- Q) the disadvantage of negative feedback is--> **gain reduced**
- Q) With negative feedback the linearity of operation of amplifier circuit--> **improve**
- Q) With negative series feedback (voltage or current) input resistance--> **increases**
- Q) Positive feedback is also known as--> **regenerative feedback**
- Q) For ideal voltage shunt amplifier what is value of R_i and R_o --> **$R_i=0$ and $R_o=\infty$**
- Q) For ideal current shunt amplifier what is vale of R_i and R_o --> **none**

- Q)Voltage sampling is also known as--> **node sampling**
- Q)Loop sampling also known as--> **current sampling**
- Q)CASCODE transistor amplifier configuration consists of--> **CE-CB**
- Q)CASCODE transistor amplifier input side amplifier is--> **emitter follower**
- Q)The product of feedback factor β and amplification factor A is called--> **return ratio**
- Q)With voltage feedback (series or shunt) output resistance--> **no effect**
- Q)How many types of feedback amplifiers are present--> **2**
- Q)Expression for distortion D with negative feedback, with usual notation D is--> **$D/1+\beta A$**
- Q)Expression for density of an amplifier circuit negative feedback is--> **$D(1+\beta A)$**
- Q)Power gain of common emitter transistor amplifier is--> **large**
- Q)A pn junction diode operated in forward bias the depletion width was--> **decreases**
- Q)Compared to common emitter configuration R_i of Darlington pair circuit is--> **high**
- Q)The disadvantage of Darlington pair circuit is--> **leakage current is more**
- Q)Compared to CC configuration Darlington pair circuit has--> **large current gain**
- Q)Disadvantage of Darlington pair circuit is--> **leakage current**
- Q)Space charge capacitance is also called as--> **transition capacitance**
- Q)The characteristic after V_p is called--> **saturation region**
- Q)Characteristics of ideal voltage amplifier are--> **$A_v=0$ $R_i=0$ $R_o=0$**
- Q)The characteristic between V_v and V_p is called--> **negative resistance region**
- Q)In wein bridge oscillator circuit the range over which frequency of oscillations can be varied is--> **10:1**
- Q)In π -section filters what are the elements presented--> **C L and C**
- Q)UJT contains how many terminals--> **3**
- Q)UJT generates which wave form--> **saw tooth**