..... rectifier needs four diodes.

A. Bridge
B. Half
C. Centre-tap full wave
D. None of the above

A.Bridge

In LED, light is emitted because

A. Light falls on LED[3]
B. Diode emits light when heated
C. Recombination of charges takes place
D. Any of the above

C.Recombination of charges takes place

The best value of rectification efficiency for a full wave (unfiltered) rectifier could be around

A. 50 percent
B. 65 percent
C. 80 percent
D. 95 percent

C.80 percent

A reverse-biased P-N junction has

A. All most zero current
B. A net electron current
C. A net hole current
D. A very narrow depletion layer

A.All most zero current

A zener diode when biased correctly

A. Never overheats
B. Acts as a fixed resistance
C. Has a constant voltage across it
D. Has a constant current passing through it

C.Has a constant voltage across it

The peak inverse voltage (PIV) is applied across a diode when it is

A. Forward-biased
B. Reversed-biased
C. On a heat sink
D. ON

B.Reversed-biased

In a P-N junction barrier potential is caused by

A. Flow of drift current
B. Thermally-generated electrons and holes
C. Diffusion of majority carries across the junction
D. Migration of minority carries across the junction

C.Diffusion of majority carries across the junction

When some voltage in applied to an intrinsic semiconductor at room temperature

A. Electrons move to positive terminal and holes move to negative terminal
B. Electrons move to negative terminal and holes move to positive terminal
C. Both holes as well as electrons move to negative terminal
D. Both holes as well as electrons move to positive terminal

A. Electrons move to positive terminal and holes move to negative terminal

The value of α of a transistor is …….

- more than 1
- less than 1
- 1
- none of the above

The output impedance of a transistor is ……..

1.high
2.zero
3.low
4.very low

The relation between β and α is ……..

1.$\beta = 1 / (1 - \alpha)$

2.$\beta = (1 - \alpha) / \alpha$

3.$\beta = \alpha / (1 - \alpha)$

4.$\beta = \alpha / (1 + \alpha)$

answer : 3

The value of β for a transistor is generally ……..

1.1

2.less than 1

3.between 20 and 500

4.above 500

The most commonly used transistor arrangement is …… arrangement

1.common emitter
2.common base
3.common collector
4.none of the above

The input impedance of a transistor connected in …….. arrangement is the highest

1.common emitter
2.common collector
3.common base
4.none of the above

The output impedance of a transistor connected in ……. arrangement is the highest

1.common emitter
2.common collector
3.common base
4.none of the above

Answer : 3

In a transistor if β = 100 and collector current is 10 mA, then I_E is ……

1.100 mA
2.100.1 mA
3.110 mA
4.none of the above

answer : 2

In a tansistor, I_C = 100 mA and I_E = 100.2 mA. The value of β is ……

1.100
2.50
3.about 1
4.200

Answer : 4

When transistors are used in digital circuits they usually operate in the …….

1.active region
2.breakdown region
3.saturation and cutoff regions
4.linear region

A current ratio of I_C/I_E is usually less than one and is called ……

1.beta
2.theta
3.alpha
4.omega

To operate properly, a transistor's base-emitter junction must be forward biased with reverse bias applied to which junction?

1.collector-emitter
2.base-collector
3.base-emitter
4.collector-base

The C-B configuration is used to provide which type of gain?

1.voltage
2.current
3.resistance
4.power

Beta's current ratio is ……..

1. I_C/I_B
2. I_C/I_E
3. I_B/I_E
4. I_E/I_B

When a silicon diode is forward biased, V_{BE} for a CE configuration is ……..

1.voltage-divider bias
2.0.4 V
3.0.7 V
4.emitter voltage

The depletion N-channel MOSFET

A.Can be operated as a JFET with zero gate voltage
B.Can be operated as an enhancement MOSFET by applying +ve bias to gate
C.Can be operated as an enhancement MOSFET by applying -ve bias to gate
D.Cannot be operated as an enhancement MOSFET

B.Can be operated as an enhancement MOSFET by applying +ve bias to gate

MOSFET has greatest application in digital circuit due to

A. Low power consumption
B. Less noise
C. Small amount of space it takes on a chip
D. All of the above

A.Low power consumption

The enhancement N-channel MOSFET

A.Cannot be operated as an enhancement MOSFET
B.Can be operated as a JFET with zero gate voltage
C.Can be operated as an enhancement MOSFET by applying -ve bias to gate
D.Can be operated as an enhancement MOSFET by applying +ve bias to gate

A.Cannot be operated as an enhancement MOSFET

The MOSFET stands for

A. Metal oxidized selenium FET
B. Metal oxide surface FET
C. Metal oxide semiconductor FET
D. Metal of surface FET

C.Metal oxide semiconductor FET

The enhancement MOSFET is

A.Normally of MOSFET
B.Useful as a very good constant voltage source
C.Widely used because of easy in its fabrication
D.Normally on MOSFET

A.Normally of MOSFET

In MOSFETs N-channel is more preferred than P-channel because

A. It is cheaper
B. It is faster
C. It has better drive capability
D. It has better noise immunity

B.It is faster

The MOSFET is almost ideal as switching device because

A. It has longer life
B. It works progressively
C. It consumes low power
D. It has linear characteristics

C.It consumes low power

IGFET is a ..... device

A.Linear
B.Logarithmic
C.Half power
D.Square law

D.Square law

The main types of field effect transistor are

A.BJT and FET
B.UJT and FET
C.JFET and MOSFET
D.None of the above

C.JFET and MOSFET

The input gate current of a FET is

A. A few micro-amperes
B. A few mili-amperes
C. A few amperes
D. Negligible

D.Negligible

The transistor can be operated in

A. Active region
B. Saturation region
C. Cut-off region
D. All of the above regions

D.All of the above regions

The arrow in a transistor terminal represents

A. Emitter
B. Collector
C. Base
D. None of the above

A.Emitter

A transistor is said to be operating in the cut-off region if

A. Emitter junction is forward biased and collector junction is forward biased
B. Emitter junction is reverse biased and collector junction is reverse biased
C. Emitter junction is reverse biased and collector junction is forward biased
D. Emitter junction is forward biased and collector junction is reverse biased

B.Emitter junction is reverse biased and collector junction is reverse biased