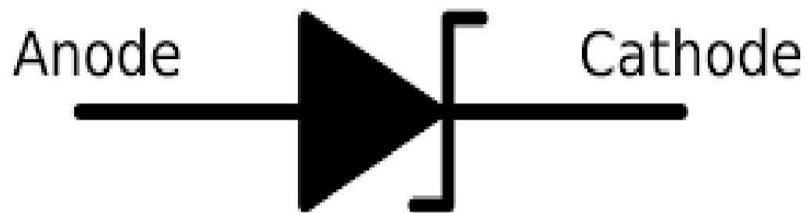


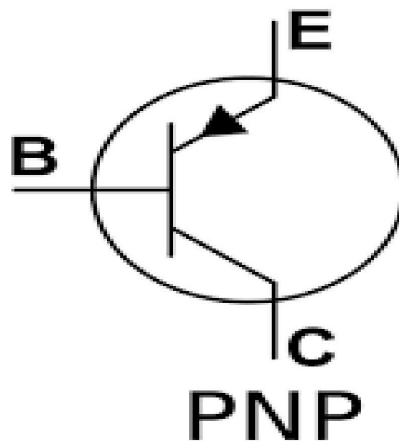
22213 Elements of Electronics Engineering Mcq Question Bank

Identify the following diode



- (a) Schottky **diode**
- (b) Zener **diode** **Answer**
- (c) Avalanche **diode**
- (d) Photodiode

Identify the symbol

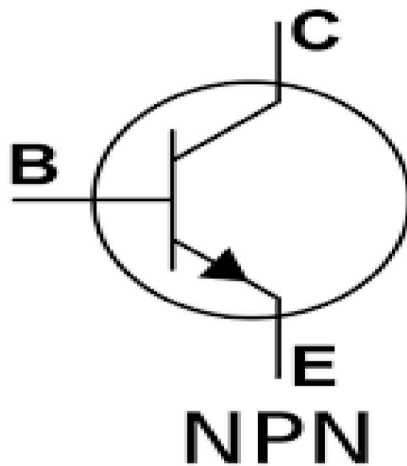


- (a) NPN
- (b) PNP **Answer**
- (c) BJTs
- (d) FETs

The diode material suitable to rectify 0.5V AC signal is

- (a) silicon **Answer**
- (b) Schottky **diodes**
- (c) contact **diodes**
- (d) None of the above

Identify the symbol



- (a) NPN **Answer**
- (b) PNP
- (c) IGBTs
- (d) None of the above

List the types of filters.

- (a) Shunt Capacitor filter
- (b) Series Inductor filter
- (c) LC filter
- (d) filter
- (e) All of the above **Answer**

Input impedance of CB is?

- (a) Low(less than 1K)
- (b) Very Low(less than 100 ohm) **Answer**
- (c) High 350K
- (d) Very High(750K)

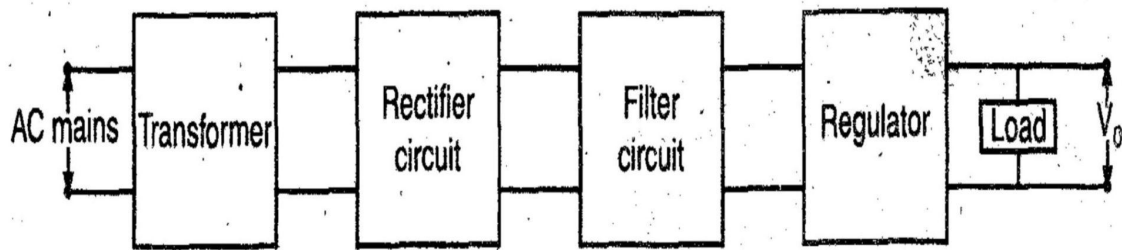
Current gain of CC is?

- (a) Less than 1
- (b) More than 1
- (c) High
- (d) Very high **Answer**

Features of IC 723

- (a) Unregulated dc supply voltage at the input between 9.5V & 40V
- (b) Adjustable regulated output voltage between 2 to 3V.
- (c) Positive or Negative supply operation
- (d) Internal Power dissipation of 800mW.
- (e) All of the above **Answer**

Identify the following Block Diagram



- (a) IC 723
- (b) DC regulated power supply **Answer**
- (c) crystal oscillator
- (d) bridge rectifier

Disadvantages of bridge rectifier

- (a) The output is twice that of centre tapped circuit for the same secondary voltage
- (b) The need of center-tapped transformer is eliminated
- (c) It requires four semiconductor diodes **Answer**
- (d) None of the above

Types of biasing

- (a) Fixed bias.
- (b) Collector-to-base bias.
- (c) Fixed bias with emitter resistor
- (d) Voltage divider bias or potential divider
- (e) All of the above **Answer**

Ripple frequency of Full Wave Rectifier

- (a) f_{in}
- (b) $2f_{in}$ **Answer**
- (c) $4f_{in}$
- (d) $6f_{in}$

Efficiency of Half Wave Rectifier

- (a) 12.60%
- (b) 34.07%
- (c) 40.6% **Answer**
- (d) 56.17%

Output voltage for IC 7824

- (a) + 08 V
- (b) + 16 V
- (c) + 24 V **Answer**
- (d) + 32 V

IC 78XX & 79XX series are used as?

- (a) Rectifier
- (b) Transformer
- (c) Filter
- (d) regulator **Answer**

overall phase shift of Positive feedback

- (a) 180 degree out of phase
- (b) 0 degree or 360 degree (In phase) **Answer**
- (c) 45 degree or 90 degree (In phase)
- (d) 120 degree out of phase

Applications of RC oscillator

- (a) Timing circuits (Clock) with high stability.
- (b) In AF signal generators **Answer**
- (c) Frequency Synthesizers
- (d) RADAR systems

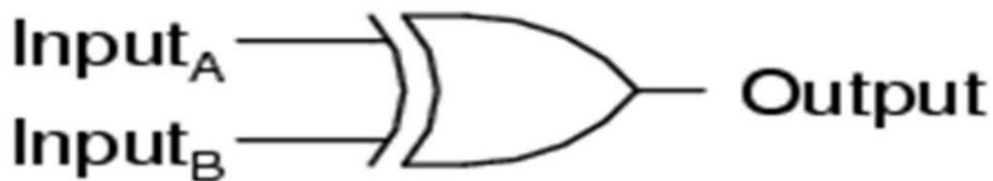
Applications of negative feedback

- (a) Used to generate clock pulses for microprocessors and microcontrollers
- (b) Used in various audio systems and video systems
- (c) Amplifier **Answer**
- (d) All of the above

Function of bridge rectifier with LC filter

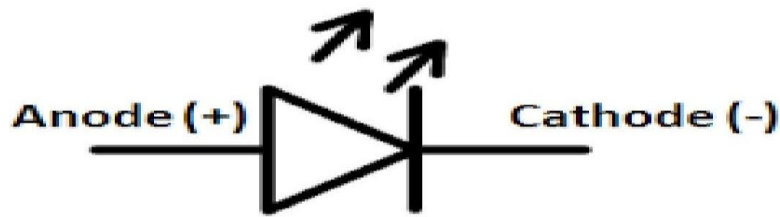
- (a) Internal Power dissipation of 800mW
- (b) Convert AC into pulsating DC
- (c) Blocks AC components of rectified output and only passes DC components.
- (d) Both (b) & (c) **Answer**

Identify the following Logic Gate



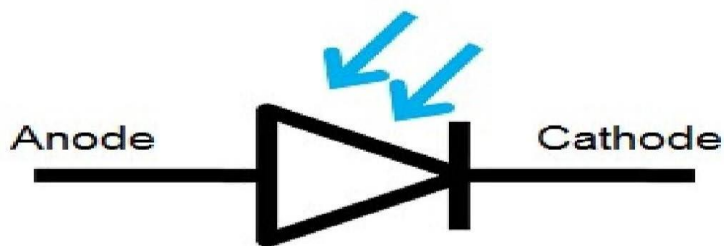
- (a) And Gate
- (b) OR Gate **Answer**
- (c) Ex-Or Gate
- (d) Nor Gate

Identify the following Symbol



- (a) Gunn Diode
- (b) Super Barrier Diodes
- (c) Laser diode
- (d) Led **Answer**

Identify the following Symbol



- (a) Rectifier Diode
- (b) Photodiode **Answer**
- (c) PN junction diode
- (d) None of the above

Applications of Crystal oscillator

- (a) Sine wave generator.
- (b) In radio transmitter & Receivers
- (c) Electronic navigation systems **Answer**
- (d) None of the above

State Whether the following statements are True or False

Line regulation is the ability of a power supply to maintain a constant output voltage irrespective of any changes in load current.

- (a) True
- (b) False **Answer**

Reason: Line regulation is the ability of a power supply to maintain a constant output voltage irrespective of any changes in input voltage.

Energy required to start conduction in Germanium diodes are more

(a) True

(b) False **Answer**

Reason: The band gap between conduction and valence band for Germanium (0.66eV) is less as compared to Silicon (1.11eV). Hence less energy is required to start conduction in Germanium diodes.

Rectification is the process of converting an Direct voltage or current into corresponding Alternating (Ac) quantity.

(a) True

(b) False **Answer**

Reason: Rectification is the process of converting an alternating voltage or current into corresponding direct (dc) quantity.

The ratio of RMS value of a component present in the waveform to the dc component in the waveform is called a ripple factor.

(a) True **Answer**

(b) False

In the collector region the junction is reverse biased and the emitter junction is reverse biased Cut off in a transistor is given by $I_B = 0$, $I_C = I_{CO}$.

(a) True **Answer**

(b) False

Load regulation is the ability of a power supply to maintain a constant output voltage irrespective of any changes in input voltage.

(a) True

(b) False **Answer**

Reason: Load regulation is the ability of a power supply to maintain a constant output voltage irrespective of any changes in load current.

A semiconductor is a device with three connections, capable of amplification in addition to rectification.

(a) True **Answer**

(b) False

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