

## Competitive Exams: Physics MCQs (Practice-Test 25 of 35)

1. An electronic oscillator gives sustained oscillations when the feedback is
  - a. negative and out of phase with the input
  - b. negative and in phase with the input
  - c. positive and, out of phase with. The input
  - d. positive and in phase with the input
2. A zener diode is also a p-n junction diode. It can be used as a/an
  - a. half-wave rectifier
  - b. full-wave rectifier
  - c. ac voltage regulator
  - d. dc voltage regulator
3. A transistor is operated in CB mode. If the collector base voltage is reduced to zero keeping the input current undisturbed, the output will be
  - a. zero
  - b. a little higher than the input current
  - c. equal to the input current
  - d. a little less then the input current
4. The circuit of a common emitter transistor amplifier with conventional stabilized bias is shown in the figure. In this circuit, R<sub>1</sub> and R<sub>2</sub>
  - a. as well as R<sub>e</sub> forward bias the base-emitter junction
  - b. forward bias the base miter junction but R<sub>e</sub> reverse biases the base-emitter junction
  - c. reverse bias the base-emitter junction but R<sub>e</sub> forward biases the base-emitter junction
  - d. as well as R<sub>e</sub> reverse bias the base-emitter junction

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5. The overall gain of a two-stage amplifier is 80 dB, If the voltage gain of the, first stage is 100, then the voltage gain of the second stage is:
- Gain 20
  - Gain 100
  - Gain 180
  - Gain 8000
6. The equivalent electrical circuit of a vibrating crystal is as shown below: The expression for the resonance frequency of this circuit is
- Equi  $\frac{1}{2p-p} LC$
  - Equi  $\frac{1}{2p-p} L (C + C_m)$
  - Equi  $\frac{1}{2p-C + C m/LC C_m}$
  - Equi  $\frac{1}{2p-R (C + C_m)}$