

II B.Tech II Semester Regular Examinations, April/May 2005
APPLIED ELECTRONICS
(Civil Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Distinguish between Zener and Avalanche mechanisms?
(b) Describe the action of PN junction diode and explain how it acts as a switch?
2. (a) Compare the performances of CB, CE and CC amplifiers?
(b) In a fullwave rectifier, the transformer rms secondary voltage from center tap to each end of secondary is 50V. The load resistance is 900Ω. If the diode resistance and transformer secondary winding resistance together has a resistance of 100Ω, determine the average load current and rms value of load current?
3. (a) Mention the disadvantages of negative feedback?
(b) Derive the expression for the frequency of oscillation and the minimum gain required for sustained oscillations in RC phase shift oscillator?
4. (a) Draw the block diagram of CRO?
(b) Explain about decade counter?
5. (a) Explain about the approximate equivalent circuit of CD amplifier?
(b) Derive the ripple factor for fullwave rectifier with capacitor filter?
6. (a) Explain about piezo-electric transducer.
(b) Explain about voltage series feedback and its equivalent circuit using transistor?
7. (a) Explain about precision, accuracy and resolution in measuring instruments.
(b) Draw and explain about the characteristics of common emitter?
8. (a) Explain about load and line regulation.
(b) Draw the block diagram of PM meter and explain?
