

**II B.Tech II Semester Supplementary Examinations,
November/December 2005
APPLIED ELECTRONICS
(Civil Engineering)**

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Explain about diffusion capacitance of a PN-junction diode.
(b) A PN junction is made by joining two germanium crystals. Calculate its barrier voltage at 300°K . [10+6]
2. (a) Derive the ripple factor in half wave rectifier with capacitor filter.
(b) Explain about the approximate equivalent circuit of CE amplifier. [8+8]
3. (a) Compare positive and negative feedback.
(b) Explain about LC oscillators. [8+8]
4. (a) Explain about the terms accuracy, resolution and linearity in measurements.
(b) Draw the block diagram of PH meter and explain? [6+10]
5. (a) Mention the applications of CRO.
(b) Draw the circuit diagram for CB configuration and explain the characteristics. [6+10]
6. (a) Draw the frequency response of single stage amplifier and derive the equation for gain.
(b) Compare halfwave and full wave rectifiers. [10+6]
7. (a) Draw the characteristics of field effect transistor.
(b) Explain about regulation? [10+6]
8. Write short notes on.
(a) Voltage series feedback
(b) Temperature transducer
(c) π - section filter. [5+6+5]
