

Thapar Institute of Engineering & Technology, Patiala

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Course Code: UEC 301; Course Name: Analog Electronic Circuits

B.E (ECE/ENC) (IV-Sem), "Tutorial Sheet No. - 9"

- Q1. What do you understand by degenerative and regenerative feedback?
- Q2. Give the two Barkhausen conditions required in order for sinusoidal oscillations to be sustained.
- Q3. Sketch the circuit of a RC phase shift oscillator using bipolar junction transistor and explain its operation. Write the expression for the frequency of oscillation for this circuit.
- Q4. Sketch the basic configuration for resonant –circuit oscillators using an operational amplifier. Also draw the linear equivalent circuit of it. How do we obtain a transistor Hartley oscillator from it?

SOLUTIONS TUT. SHEET # 9

All the questions are theoretical and solutions of these are given in book Milliman & Halkias