

INTERNAL ASSESSMENT-II (MODEL EXAMINATION-II)

Sub. Code /Sub. Title: EC6401/ ELECTRONIC CIRCUITS-II

Date: 06.03.2015

Branch: ECE

Duration: 3 HRS

SEMESTER/YEAR:II/IV

Max. Marks: 100

Answer all the Questions

PART A - (10 x 2 = 20)

1. Define loaded Q and unloaded Q.
2. What are tuned amplifiers? what are the various types of tuned amplifiers?
3. What is a stagger tuned amplifier?
4. What do you mean by neutralization?
5. Draw the circuit for narrow band neutralization.
6. How does a diode act as a comparator?
7. How low pass circuit used as an integrator?
8. Determine the value of capacitors in an astable multivibrator to provide a train of pulse 2 μ sec wide at a repetition rate of 75 kHz with $R_1=R_2=10$ k Ω .
9. Define duty cycle.
10. Define the threshold points in a Schmitt trigger circuit.

PART B (5X16=80)

11. a) Describe the operation of single tuned amplifier with neat diagram(16).
 b) (i) Describe the working of stagger tuned amplifier with appropriate derivations.(8)
 (ii) What is the effect on bandwidth by cascading single tuned amplifier and double tuned amplifier? (8)
12. a) Describe the operation of Double tuned amplifier with neat diagram(16)
 b) Explain (i) Hazeltine neutralization
 (ii) Coil neutral lisation.
13. a) Draw circuit of Class C tuned amplifier and explain its operation with relevant waveform and also explain its application.(16)
 b) Draw the circuit diagram of collector coupled astable multivibrator and draw the waveform at the collector and base of both the transistors. Explain its principle of operation and derive expression for frequency of oscillation.(16)
14. a) Explain the principle of operation monostable multivibrator with neat diagram.(16)
 b) Explain the working principle of Bistable multivibrator with neat diagram.(16)
15. a) Explain the triggering methods of Bistable multivibrator.(16)
 b) Draw the circuit diagram of a Schmitt Trigger and explain the operation with relevant waveform. Derive LTP and UTP.(16)