

B.E DEGREE EXAMINATIONS: MAY/JUNE 2013

Fourth Semester

ELECTRONICS AND COMMUNICATION ENGINEERING

ECE106: Electronics Circuits II

Time: Three Hours**Maximum Marks: 100****Answer all the Questions:-****PART A (10 x 1 = 10 Marks)**

- The sensitivity of the feedback amplifier is given by
 - $1/(1+\beta A)$
 - $(1+\beta A)$
 - $A/(1+\beta A)$
 - $(1+\beta A)/A$
- An amplifier has a mid-band gain of 1000 is made into a feedback amplifier by feeding 10% of the output voltage in series with input opposing. If $f_L=20\text{Hz}$ and $f_H=50\text{Hz}$.what is its f_{Lf} ?
 - 20 Hz
 - 20 Hz
 - 0.198 Hz
 - 0.198 Hz
- The oscillators used at low frequency rangesie.20Hz to 200 kHz are _____
 - RC phase shift
 - Wien bridge
 - both a and b
 - none of the above
- A crystal $L=0.4\text{H}, C=0.085\text{ pF}$, then its quality factor is
 - 420
 - 480
 - 430
 - 0
- Calculate the bandwidth of a tuned circuit when resonant frequency is 5.19 MHz and $Q=13.29$
 - 3.9 kHz
 - 29 kHz
 - 390.5kHz
 - 39 kHz
- The response of the tuned amplifiers is _____ at resonance frequency
 - Zero
 - Minimum
 - infinite
 - Maximum
- The frequency of an astable multivibrator with $R=10\text{K}\Omega$ & $C=0.01\mu\text{F}$ is
 - 7.60kHz
 - 7.6 MHz
 - 50 kHz
 - 760MHz
- _____ is an example for series negative clipper.
 - Half wave rectifier
 - Full wave rectifier
 - Time base generators
 - Schmitt trigger
- During sweep time the voltage _____.
 - Increases linearly
 - Decreases linearly
 - Rises suddenly
 - False suddenly

(OR)

- b) (i) Discuss the operation of Class C tuned amplifiers. (8)
- (ii) Obtain the bandwidth of a multistage single tuned amplifier. Also determine the bandwidth of 3 stage single tuned amplifier with $f_r = 455\text{KHz}$ and loaded Q of each stage is 10. (6)

24. a) Discuss the working of Schmitt trigger with neat circuit diagram. How is its LTP and UTP are determined.

(OR)

- b) Explain the working of collector coupled Astable multivibrator .Obtain an expression of its time period.

25. a) Explain the Transistorized bootstrap time base sweep generator with circuit diagram and waveform. Derive its output voltage. (8)

What is pulse transformer? Explain its equivalent circuit. (6)

(OR)

- b) Draw and explain the operation of base timing blocking oscillator. Also obtain an expression for its pulse width
