

School of Engineering & Technology
Guru Ghasidas Vishwavidyalaya (Central University)
Department of Information Technology Engg
CT-2 EXAMINATIONS – December 2020

Subject: Analog Electronic Circuits

Duration: **1Hour**

Date 15/12/2020

M.M:15.

Branch: B.tech 3rd sem

Attempt any 5 question.Each carries 3 marks.

Q.1) With neat diagram explain the function of each block of a feedback system?[CO-3, BTL-2 , Marks-3]

Q.2) Draw the circuit diagram of transconductance and transresistance amplifier?[CO-3, BTL-1 , Marks-3]

Q.3) Derive expressions for input and output resistance with feedback for a Voltage series amplifier? [CO-3,BTL-4, Marks-3]

Q.4) Explain working of R-C phase shift oscillator with proper diagram?
[CO-5, BTL-3, Marks-3]

Q.5) Write any three difference between Amplifier and Oscillator?[CO-5, BTL-2, Marks-3]

Q.6) Derive general equation of an Oscillator circuit?[CO-5, BTL-4, Marks-3]

Q 7) a)Find frequency of oscillations of Hartley Oscillator if $L_1=150$ microhenry
 $L_2= 1.5$ millihenry and $M= 75$ microhenry And $C= 150$ picofarad

b)Find frequency of oscillations of Colpitts Oscillator and feedback factor if $C_1=0.001$ microfarad $C_2= 0.01$ microfarad and $L= 100$ microhenry ?.[CO-5, BTL-3, Marks-3]