Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: T.Y. B. Tech.	**School of Technology**	**Department: Electronics Engineering**
Course Code: ECE 303	**Course Title: Linear Integrated Circuits & Applications**	**Semester : V**
Day : Wednesday **Date : 16/12/2020**	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Question Paper

Instructions: 1) All Questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Answer the following (any two)**–			
a)	Draw and explain the block diagram of 741 opamp.	8	L2	CO1
b)	Elaborate the closed loop configurations of 741 opamp.	8	L5	CO1
c)	Design a second order LPF with high cut off frequency of 1 KHz.	8	L5	CO4
Q.2	**Answer the following (any two)** –			
a)	What are different categories of oscillators. Explain RC phase shift oscillator.	8	L5	CO4
b)	Draw and explain the working of window detector circuit.	8	L2	CO3
c)	Illustrate the working of square wave generator using 741 opamp.	8	L3	CO3
Q.3	**Answer the following (any two)** –			
a)	Derive the expression for gain of instrumentation amplifier.	9	L4	CO2
b)	Design a Wein bridge oscillator to get the output frequency of 965 Hz.	9	L5	CO3
c)	Draw first and second order Butterworth LPF and HPF circuits. Mention the formulae for designing these filters.	9	L3	CO4

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