	Enrollment No:		Exam Seat No:		
		C.U.SHA	H UNIVERSI	ΓΥ	
		Summer	<b>Examination-201</b>	9	
	Subject (	Name: Linear Electronics Code:4TE03LNE1 r: 3 Date: 15/03/2019	Branch: B.Tech (CE) Time: 02:30 To 05:30	Marks: 70	
	(2) I (3) I	ons: Use of Programmable calculator instructions written on main ans Draw neat diagrams and figures Assume suitable data if needed.	swer book are strictly to be obe (if necessary) at right places.	-	
Q-1		Attempt the following quest	ions		(14)
	a) b) c) d) e) f) g) h) i) j) k) l) m) n)	Draw the circuit of unity gain Define slew rate. What is offset nulling? State the need of biasing. State the barkh Husain criteria	lity? coltage Shunt negative feedback follower using IC-741.  a. tor is thicker than voltage trans on he and hoi?		
Atte Q-2		four questions from Q-2 to Q-Attempt all questions Explain collpitts oscillator with What is positive feedback? He oscillator. Explain RC phase s	th necessary diagram. ow positive feedback is achieve	e in RC phase shift	(14) 07 07
0.2		Attempt all questions			(14)

## **Q-2** Q-3 **Attempt all questions (14)** Determine the voltage gain, input impedance with feedback for voltage series 1 **07** feedback amplifier having following values without feedback. Gain =100, Ri=10000 $\Omega$ and Ro=47K $\Omega$ , feedback factor=10% Define feedback. List the advantages of negative feedback and explain each in 2 **07** brief. **Q-4 Attempt all questions (14)**



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each pin.

What is operational amplifier? Draw pin diagram of IC-741. State the function of

05

	2	Give the classification of amplifier in short.	04
	3	What is biasing? Explain fixed bias with necessary circuit.	05
Q-5		Attempt all questions	(14)
_	1	Explain op-amp as differentiator with necessary waveforms.	06
	2	Draw the circuits of class-B push-pull amplifier. Derive the efficiency of class B power amplifier.	08
Q-6		Attempt all questions	(14)
	1	Explain H-parameter model of CE amplifier.	06
	2	Explain op-amp configuration in all aspect.	08
Q-7		Attempt all questions	(14)
_	1	Explain distortion in power amplifier.	07
	2	Compare the voltage amplifier and power amplifier	04
	3	State the need of biasing.	03
Q-8		Attempt all questions	
-	1	Explain op-amp as a summing amplifier.	(14) 04
	2	Derive the equation of overall gain for positive feedback.	06
	3	Explain Class-C amplifier	04

