

## Vivekananda College of Engineering & Technology, Puttur [A Unit of Vivekananda Vidyavardhaka Sangha Puttur ®]

Affiliated to VTU, Belagavi & Approved by AICTE New Delhi

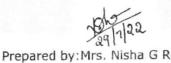
CRM08 Rev 1.10 EC 28/07/22

## CONTINUOUS INTERNAL EVALUATION- 2

Dept:EC Sem / Div:IV Sub:Analog Circuits S Code:18EC42
Date:03/08/2022 Time: 3:00-4:30 pm Max Marks: 50 Elective:N

Note: Answer any 2 full questions, choosing one full question from each part.

	Questions	Marks	RBT	COs
1	N PART A			
1	a Explain series shunt feedback amplifier and obtain expression for Rin Ro.	and 9	L2	CO3
	b A feedback Amplifier has a closed loop gain of 100V/V ar relatively intensive to change in basic amplifier gain. If a neg feedback provides a reduction in Af to 99V/V for a reduction in	ative	L3	CO3
	one-tenth its nominal value, i)Find loop gain, nominal value of A, feedback factor B? ii)What will be the closed loop gain if A is increased ten fold? iii)What will be the closed loop gain if A=∞			
	c Explain the Frequency Response of CS amplifier and Derive the expression for Low frequency response of a common source ampl	ifier.	L2	CO2
	OR			
2	a Explain the properties of negative feedback amplifiers	10	L2	CO3
	b Explain the Classification of output stages of power amplifers	9	L2	CO3
	c A transformer coupled class A amplifier draws a current of 200 from Vcc=10V when no signal is applied to it. Find (i) maxi output power (II) Maximum Collector efficiency (iii) power rational the transistor. Given that the load is RL=2 $\Omega$ . And transformer rational 5:1	mum ng of	L3	CO3
-	PART B			
3	a Explain shunt series feedback amplifier and obtain expression fo	r Rin 10	L3	CO3
	b Explain the internal capacitances of a MOSFET and hence draw the high frequency small signal model of MOSFET	he 10	L2	COI
	c Explain class A Amplifier and show that class A Amplifier has maximum efficiency of 25%	5	L2	CO3
	OR			
4	4 a Explain series series feedback amplifier and obtain expression fo and Ro		L2	CO3
	b Find the midband gain AM and the upper 3dB frequency fH of amplifier fed with a signal source having Rsig=100K $\Omega$ .		L3	CO2
	c Explain Class B output stage amplifier and derive the expression power conversion efficiency	on for 9	L2	CO3



OS het