

Enroll No

Q. P. Code

UT 3173

Course Code: ECMD201 Course: Electronics Devices & Applications

Day & Date: Friday 13/09/2025

Time : 3:45 To 4:45

Max Marks- 25

Instructions: 1. All questions are compulsory.

2. Figures in rounded () brackets within the question, indicate the scheme of marking for respective part of the question, whereas, figures in the first right column indicate total marks for that whole question.

3. CO is the index number of the Course Outcome statement.

4. The Bloom's taxonomy level (BL) for 1, 2, 3, 4, 5 and 6 is remember, understand, apply, analyze, evaluate and create respectively.

5. Assume suitable data if necessary.

6. Use of non-programmable calculator is allowed.

Solve the Following

			Mark s	COs	BL
Q.1	A	Derive the output voltage of the closed-loop Inverting and Non-inverting Amplifier (3M each).	6M	CO2	L3
	B	Determine the output voltage of the Non-inverting summing Amplifier. Also, find the conditions for the addition and averaging circuit.	7M	CO2	L3
OR					
	B	Determine output voltage of Subtractor using the superposition theorem and the virtual ground concept.	7M	CO2	L3
Q.2	A	Perform the following conversions (2M each)	8M	CO1	L3
		i. $(11111100.11)_2$ to decimal			
		ii. $(150.5)_{10}$ to binary			
		iii. $(125)_8$ to decimal			
		iv. $(9A)_{16}$ to decimal			
	B	Perform the following operations (2M each)	4M	CO1	L3
		i. $(11000001)_2 + (00111100)_2$			
		ii. $(23)_8 + (17)_8$			

