

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
End Semester Examination – Winter 2018

Course: B. Tech in E&TC
Subject Name: Analog Circuits
Date: 03/12/2018

Max Marks:60

Sem: III
Subject Code: BTEXC302
Duration: 3 Hrs.

Instructions to the Students:

1. Solve ANY FIVE questions out of the following.
2. The level question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

	(Level/CO)	Marks
Q.1 Solve the following.		
A) Explain Block diagram of OPAMP	Understand	06
B) Write Short note on Current Mirror Circuit	Remember	06
Q.2 Solve the following.		
A) Design the OPAMP circuit which can give the output as $V_o = 2V_1 - 3V_2 + 4V_3 - 5V_4$	Evaluate	06
B) Draw circuit diagram of Instrumentation Amplifier and Derive expression for output voltage	Synthesize	06
Q.3 Solve the following.		
A) Draw and Explain circuit diagram of Full Wave Precision Rectifier with its operation	Understand	06
B) Compare Schmitt Trigger and Comparator	Understand	06
Q.4 Solve Any Two of the following.		
A) Write short note on I to V Converter	Remember	06
B) Draw and Explain R-2R Ladder DAC	Understand	06
C) Draw and Explain Dual Slope ADC	Understand	06
Q.5 Solve the following.		
A) Compare RC Phase Shift Oscillator and Wien Bridge Oscillator	Understand	06
B) Design Wien Bridge Oscillator circuit to have output frequency of 10KHz	Evaluate	06
Q.6 Solve the following.		
A) Draw and Explain Block Diagram of PLL	Understand	06
B) Draw and Explain Band Pass Filter circuit and its Frequency response	Understand	06

*** End ***

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