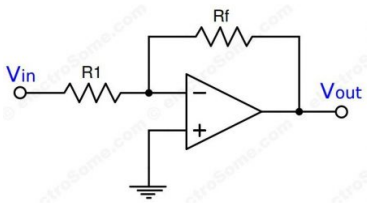
	DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE **Supplementary Summer 2024** **Course: B.Tech. Branch :Electronics and Computer Engineering Semester :III / Electronic and Computer Science Engineering** **Subject Code & Name: Electronics Devices & Circuits (BTECPC302)** **Max Marks: 60 Date:02/07/2024 Duration: 3 Hr.**		
	Instructions to the Students: *1. All the questions are compulsory.* *2. The level of 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 Any Two of the following.**		**12**
A)	**Explain the working of N - channel E - MOSFET with diagram and also draw the drain characteristics.**	**02/CO1**	**6**
B)	**Compare Common Source ,Common Drain and Common Gate configurations of FET .**	**02/CO1**	**6**
C)	**Discuss the different parameters of JFET.**	**02/CO1**	**6**
Q.2	**Solve Any Two of the following.**		**12**
A)	**Explain the operation of Op -Amp Integrator with expression for its output voltage.**	**03/CO2**	**6**
B)	**Draw and explain the block diagram of Op - Amp in detail.**	**02/CO2**	**6**
C)	**Explain the inverting amplifier and Determine the voltage gain of inverting amplifier with R 1 = 10KΩ and Rf = 47 KΩ .** 	**03/CO2**	**6**
Q. 3	**Solve Any Two of the following.**		**12**
A)	**Explain the effect of negative feedback on any three characteristics of amplifier .**	**02/CO3**	**6**
B)	**Draw the circuit diagram of Wein bridge oscillator and calculate the frequency of oscillations with R1 = R2 = 220 KΩ and C1 = C2 = 250 pF.**	**03/CO3**	**6**
C)	**Explain the construction and working of RC phase shift oscillator .**	**02/CO3**	**6**

Q.4	**Solve Any Two of the following.**		**12**
A)	**Explain the operation of transistorized series voltage regulator .**	**02/CO4**	**6**
B)	**Describe the three terminal voltage regulators.**	**02/CO4**	**6**
C)	**Write a short note on voltage regulator IC 723.**	**02/CO4**	**6**
Q. 5	**Solve Any Two of the following.**		**12**
A)	**Discuss the Classification of Transducers .**	**02/CO5**	**6**
B)	**Explain construction and working of LVDT.**	**03/CO5**	**6**
C)	**Write a short note on Temperature Transducers.**	**02/CO5**	**6**
	***** End *****		