INDIAN INSTITUTE OF TECHNOLOGY DHARWAD
Dharwad, 580 011

Wednesday	**EE 202: Introduction**	Time: 1630 to 1700
03rd Nov. 2021	**to Analog Circuits**	Marks: 15
	Quiz 2 - Part B	

Make suitable assumptions where you deem necessary and state them in the answerbook.

Write the question number clearly before every answer and show the intermediate steps to demonstrate your thought process.

Write page numbers on all your answer sheets.

You should stop writing at 1620. Take pictures of your answer sheet with the page numbers visible and submit it on Moodle before 1830 Hrs. Your submission could be a zip file of all images or a single PDF file. Please note that Moodle submission link will automatically get disabled at 1630. I will not accept any email submissions.

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1. Explain how we can design an amplifier to have zero input impedance. Give one example where this circuit would be useful. [5]

2. In the circuit shown in Figure 1, find an expression for the current I_z through the feedback impedance Z. [4]

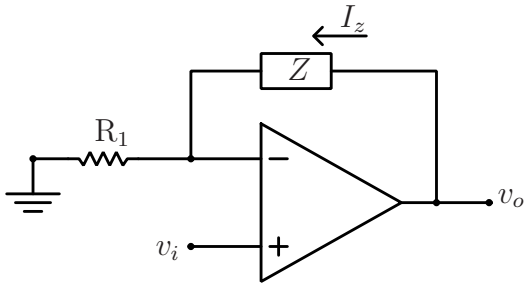

Figure 1: Circuit for question 2.

3. For the circuit shown in Figure 2, is the overall feedback negative or positive? Find an expression for V_o/V_{in} [6]

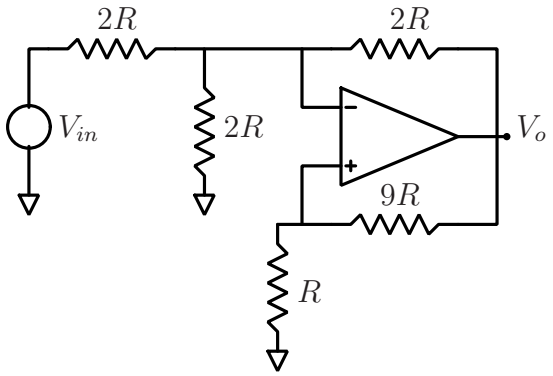

Figure 2: Circuit for question 3