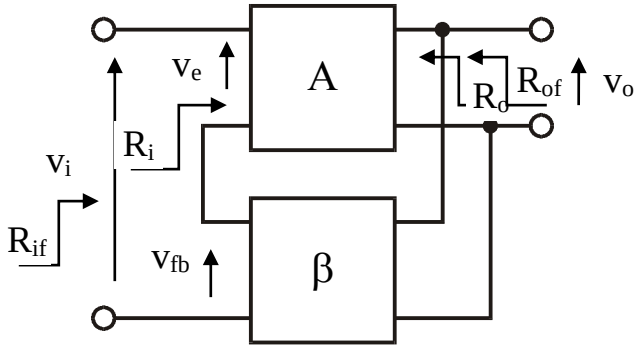


EE3110 Analogue Electronic Circuits
Feedback Amplifier Analysis

Name : _____ Student Number : _____ Date : _____

For each of the diagram below, label all variables involved for the analysis of feedback topology, and then fill in the entries in the corresponding table box provided. The first one is done for you. Please use suitable subscripts to represent the correct types of signal or gain etc.

1.



Feedback type: series - shunt

Feedback signal: voltage

Output signal: voltage

Amplifier gain: $A_V = v_o/v_e$

Feedback network gain: $\beta_V = v_{fb}/v_o$

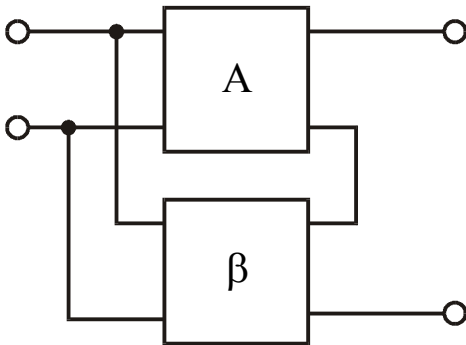
Amplifier name: voltage amplifier

Input resistance with feedback: $R_{if} = R_i (1 + \beta_V A_V)$

Output resistance with feedback: $R_{of} = R_o / (1 + \beta_V A_V)$

Feedback gain: $A_{Vf} = 1 / (1 + \beta_V A_V)$

2.



Feedback type:

Feedback signal:

Output signal:

Amplifier gain:

Feedback network gain:

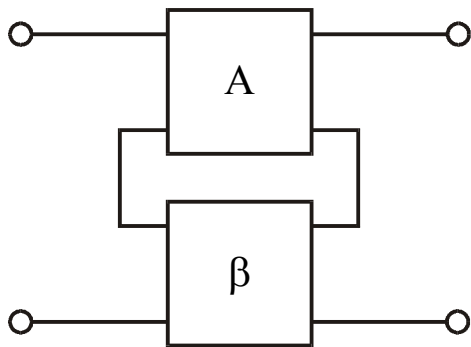
Amplifier name:

Input resistance with feedback:

Output resistance with feedback:

Feedback gain:

3.



Feedback type:

Feedback signal:

Output signal:

Amplifier gain:

Feedback network gain:

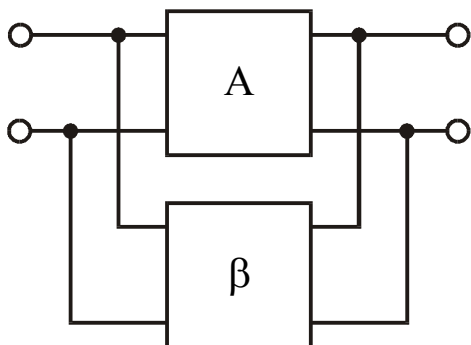
Amplifier name:

Input resistance with feedback:

Output resistance with feedback:

Feedback gain:

4.



Feedback type:

Feedback signal:

Output signal:

Amplifier gain:

Feedback network gain:

Amplifier name:

Input resistance with feedback:

Output resistance with feedback:

Feedback gain: