



5.

The figure shows the Bode plots for two negative-feedback amplifiers. Answer shortly to following questions.

- a) What is the DC gain, phase margin, gain margin, and unity gain frequency in case A (dashed line)? (4 p)
- b) We want to use amplifier in case A to construct a stable amplifier with a closed-loop gain of 20 dB. Therefore, we lower the open-loop gain as shown in case B. What is the DC gain, phase margin, gain margin, and unity gain frequency in this modified case B (solid line)? (4 p)
- c) In order to make the system stable, instead of using the method applied for case B, we could modify the poles by moving or adding them to lower frequencies. What is the drawback of this method? (2 p)

