

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**King Fahd University of Petroleum and Minerals
Department of Electrical Engineering**

Semester I 2005/2006

EE303 Electronics II

Quiz (3)

**ATTEMPT ALL QUESTIONS
TIME ALLOWED 10 MINUTES**

You have a badly designed amplifier with gain $150 \pm 50\%$, bandwidth = 1 MHz and percentage harmonic distortion = 10%. You decided to improve the performance of this amplifier by applying negative feedback to keep the gain changing only within $\pm 5\%$. What will be the bandwidth and the harmonic distortion of the new amplifier with feedback?