

### Problem 1-6

From Problem 1-3,  $(\hat{V}_{oi})_1 = 9V$

From Problem 1-4,  $20 \log_{10} \left| \frac{V_o(s)}{V_{oi}(s)} \right| = -47.4$

$$\therefore (\hat{V}_o)_1 = 0.00427 (\hat{V}_{oi})_1 \\ = 38.4 \text{ mV}$$

$$\therefore (\Delta V_c)_{pp} = 2 \times (\hat{V}_o)_1 = 76.8 \text{ mV}$$

The above value is fairly close to the more accurate estimation of 80mV. [An error of 4%.]