

# Microelectronic Circuits

## LT Spice – Session 3

**Date: - 03.03.19**

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Note: For both the questions, define the MOS transistors using the external model file that we have provided and assume a load capacitance of 100fF to model the gain roll-off.

Q.1) Design a Common Source Amplifier (CSA) which satisfies the following criteria(s): -

- a) Use a passive load
- b) Gain  $\geq 20$  dB

Q.2) Design a Common Source Amplifier (CSA) which satisfies the following criteria(s): -

- a) Use an active load with current mirror biasing scheme
- b) Gain  $\geq 20$ dB