

ECE 2C Important Topics Lists

1. Difference between MOSFET (NMOS & PMOS) and BJT

2. Transistor IV Characteristics:

DC analysis, small signal model, Diode-connected transistor, channel length modulation, Body connection for N/P MOS

3. Single Stage Amplifier (CS, CG, Source Follower, etc.)

Voltage gain, input and output resistance, Frequency Response
 $f_{H/L}$

4. Multistage Circuit (Cascade, CC-CE, Differential pair)

Voltage gain, input and output resistance, Frequency Response
CMOS/BJT current-steering circuits, circuit with active or passive load, determination of W/L or ratio of A_s for MOS or BJT

5. Op-Amp Basic

Transfer function, Differential mode and Common mode

P.S.

This list is prepared by TA, the final exam may not just limited to the topics above