



Department of Computer Science & Engineering (CSE)
CSE 251– Electronic Circuits
3rd Class Test

Course Code: CSE 251
Teacher's Initial: SMRC
Time: 30 Mins

Semester: Fall 21
Section: 5 (Five)
Full Marks: 20

All the questions must be answered. Symbols have their usual meanings.
The number at the right end after each question indicates the associated marks.

Problem Statement 1 [12]

With proper diagram and assumption, derive the expression of the Drain Current (I_D) of an Enhancement type N-MOSFET working in triode and saturation modes. [Ignore the effect of channel length modulation in your derivation]

Problem Statement 2 [6]

Explain the Channel Length Modulation effect in an Enhancement type N-MOSFET.

Problem Statement 3 [2]

State two basic differences between Depletion type and Enhancement type MOSFETs.