

Department of Electrical Engineering

Assignment 2

Date: 09/05/2020

Course Details

Course Title: _____

Module: _____

Instructor: _____

Total Marks: _____

Student Details

Name: _____

Student ID: _____

Q1.	Consider a resistive load inverter circuit with $V_{DD} = 5\text{V}$, $K'n = 20 \mu\text{A}/\text{V}^2$, $V_{T0} = 0.8\text{V}$, $R_L = 200 \text{k}(\Omega)$, $W/L = 2$ Calculate the critical voltages V_{OL} , V_{OH} , V_{IL} , V_{IH} on the VTC and find the noise margins of the circuits?
Q2.	Design a CMOS logic layout given the following function $F = \overline{(AB + C)}B + \overline{D}$
Q3.	What is MOS Inverter? Also draw the circuit diagram of MOS Inverter
Q4.	Write a note on Depletion load NMOS Inverter.