

EE1002 Principle of Electronics

Tutorial IV

1. MOSFET stands for _____ - _____ - _____ - _____ - _____.
2. A MOSFET has four terminals. They are _____, _____, _____, and _____.
3. Draw the circuit symbols for following MOS transistors:

	Enhancement	Depletion
P-channel		
N-channel		

4. For a p-channel MOSFET, the substrate is _____ (n-type/p-type) semiconductor. The source-drain doping is _____. A depletion layer can be created by a _____ (positive/negative) gate voltage which forces _____ to move away from the insulator/semiconductor interface.
5. The density of microchips has followed an exponential trend that is known as _____. According to this prediction the number of components that could be crammed into an integrated circuit would double every two years. The advance of microelectronics is often characterized by the chip density and the _____ of an MOS transistor.

6. MOS transistor has advantages of:

7. The advantages of device downsizing include:
