


L20Q1	What happens when a logical "1" is applied to the gate?																																																	
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	formed by electrons being attracted to the area between the source and drain.																																																	
L20Q2	What happens when a logical "0" is applied to the gate?																																																	
	A conductive channel forms connecting D and S																																																	
	formed by holes being attracted to (electrons being pushed away from) the area between the source and drain.																																																	
L20Q3	What is the output voltage when the input is connected to ?	0	V																																															
L20Q4	What is the output voltage when the input is connected to GND?	VDD																																																
L20Q5	Complete the truth table.																																																	
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L20Q6	Cpmpete the truth table.	$\rho=1$ and $\gamma=1$																																																
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L20Q9	How much energy is stored in each gate ($C=1 \cdot 10^{-12}F=1fF$) if charged to VDD?	18	fJ	$18 \cdot 10^{-12}$	J																																													
L20Q10	How much energy is consumed from the voltage source to charge it?	36	fJ	$36 \cdot 10^{-12}$	J																																													
L20Q11	How many $2fF$ caps are switched at $1V$ every ns to dissipate $100W$?																																																	
	if $\alpha=1$, $N=50000000$																																																	
L20Q12	If the total number of transistors on a chip is 1 billion, what is ?																																																	
	$\alpha=.05$ which represents 5% of the transistors are active.																																																	
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