

Closed book and notes.

Show your work for credit and place a box around each of your answers.

1. Write two equations for $V_c(t)$ (one for each transition in the input, V_s) in the following circuit noting RC ($= 100$ ns) is much smaller than the pulse width ($1\mu\text{s}$) and period ($2\mu\text{s}$) of the input. What is $V_c(t)$ if the pulse width and period are changed so that they are much shorter than the RC time? (5 points)

