

Answers to EEE210 Quiz #2 AY2014-2015

1. $I_D(0^+) = 9 \text{ mA} \Rightarrow D$ is initially forward biased. D switches to reverse biased at time $t_p = 2.798 \mu\text{s}$. Finally:

$$i_L(t) = \begin{cases} 16 - 21 e^{-t/(5 \mu\text{s})} \text{ mA} & \text{if } t \leq t_p = 2.798 \mu\text{s} \\ 4 \text{ mA} & \text{if } t \geq t_p = 2.798 \mu\text{s} \end{cases}$$

2. (a) Refer to notes.
(b) $R_P = 194.118 \Omega$