

Answers to EEE210 Quiz #1 AY2015-2016

1.

$$V_o = \begin{cases} 2(V_i + 1)/3 & \text{if } V_i > 2 \text{ V} \\ V_i & \text{if } V_i < 2 \text{ V} \end{cases}$$

2. $I_R = 3 \text{ mA}$, $V_o = 1 \text{ V}$.

3. (a) $V_S = 2.81235 \text{ V}$

(b) $V_S = 2.85 \text{ V}$

4. $v_o(t) = \frac{-g_m(R_3 \parallel R_4)}{1 + g_m R_2} v_i(t)$