Q.2 Set. (A) Determine the received signal power at distances 3 Km and 5 Km using exact two ray ground reflection model and compare with approximate model under valid assumptions. Assume the following paramters i Power measured at reference distance $d_0 = 1$ Km is 1 μ W.

ii f = 1800 MHz, $h_t = 40 \text{ m}$, $h_r = 3 \text{ m}$, and $G_t = G_r = 0 \text{ dBi}$.