a)

Variable	Coefficient	SE	t-value	p-value
Intercept	-2.488	0.890	-2.796	0.005
Male	0.954	0.158	6.029	0.000
Active	0.914	0.185	4.845	0.000
Age	0.070	0.036	1.964	0.050
$(Age/10)^2$	-0.069	0.034	-2.015	0.044

Log-likelihood -601.862

b)   interpretation parameters the same
     does not matter how you code the binary variable y.
                                                    $=resp_i$

c)   log Likelihood H_1 = -601.862
                     H_0 = -636.097

LR = $-2(L_0 - L_1) = -2(-636.097 - (-601.862))$ =68.470

$\chi^2(2)$- distribution under H_0

=> H_0 rejected at 5% level
   $H_0 : \beta_1 = \beta_2 = 0$ rejected at 5% level