11. Correct. The answer is true. The monopolist should produce where

$(1-t_p)MR - MC = 0$

$(1-0.1)*(118.75 - 4Q) - 3Q^2 + 50Q - 200 - 2 = 0$

$-3Q^2 + 46.4Q - 93.125=0$

This equation has two solutions Q1 = 2.37 and Q2 = 13.10.

Second order conditions are

$(1-t_p)dMR/dQ - dMC/dQ <0$

(1-0.1)*(-4) - 3*2*2.37 + 50 = 32.179 > 0 (min) and

(1 - 0.1)*(-4) - 3*2*13.10 + 50 = -32.179 < 0 (max).

Price at maximum quantity = 118.75 -2*13.10 = $92.56.

Economic profits = P*Q - TC - (t*P*Q) = $P*Q - Q^3 + 25Q^2 - 200Q - (t*P*Q)$

$= 92.56*13.10 - 13.10^3+25*13.10^2-200*(13.10) - 0.1* 92.56*13.10$

=1212.54 - 577.84 -121.25 = 513.45.

Government revenues = (t*P*Q) = 0.1* 92.56*13.10 = 121.25.

Social welfare = consumer surplus + profits + tax =

(118.75 - 92.56)*13.10*0.5 + 513.45 + 121.25 = 806.24.