QUESTION 2, Page 56 in Blanchard's text-book

(a)

$Y_D = Y - T = Y - 100$
Agg. Demand $= Z = C + I + G = 160 + 0.6 (Y - 100) + 150 + 150 = 400 + 0.6 \, Y$

Equilibrium: $Z = Y$
$\qquad\qquad\quad Y = 400 + 0.6 \, Y$
$\qquad\qquad\quad Y = 1000$

(b)

$Y_D = Y - 100 = 900$

(c)

$C = 160 + 0.6 \, 900 = 700$

QUESTION 3, Page 56 in Blanchard's text-book

(a)

From the previous question, aggregate demand is: $Z = 400 + 0.6 \, Y$

When $Y = 900$, $Z = 940$.

So, there is excess demand at that level of production.

(b)

We know from question 2 that Y is the equilibrium level of output. Starting from Y=940, as we increase Y by one dollar amounts, demand increases by less than one dollar (ie: by 0.6 dollars). So, excess demand falls as we increase production. Excess demand is 0 at Y=1000.

(c)

Private savings $= Y_D - C$.
In equilibrium [from question 1], private savings are equal to 200. Investment is equal 150, so private savings are *higher* that investment.

For the economy, it has to be the case that Total Savings = Investment, where Total Savings = Private Savings + Public Savings.

In this case, Public Savings $= T - G = -50$.

QUESTION 4, Page 56 in Blanchard's text-book

(a)

Share of different components in GDP: question 2 vs data (1998)

Consumption: 70%   (68 % in data)
Investment: 15%   (15 % in data)
Gov. Expenditure: 15% (18 % in data)

(b)

In the 1990-91 recession, real GDP fell by 2 % (6171 in 90:2 to 6047 in 91:1).

(c)

In terms of c_0, equilibrium output is equal to:

$$Y^{eq} = (1 \ / \ 0.4 \ ) \ (c_0 + 240)$$

If we want to make Y^{eq} equal to 980 (a 2% reduction of the initial equilibrium output = 1000), we have to solve for c_0 in the following equation:

$$980 = (1 \ / \ 0.4 \ ) \ (c_0 + 240), \text{ so } c_0 = 0.4 * 980 - 240 = 152. \text{ So, } c_0 \text{ should fall by 8.}$$

(d)

The change in c_0 is lower that the resulting change in output. This is due to the multiplier effect.