Midterm 2 Solutions - Economics 101 - Fall 2007 version B

Multiple Choice:
1) a 2) b 3) d 4) b 5) c
6) d 7) c 8) b 9) a 10) d

Problem 1:
11-13) b,d,c
14-15) a,a
16-17c) c,b
d) The classical dichotomy states that changes in nominal variables do not affect real variables but only other nominal variables.

Problem 2:
a) As money velocity falls, AD curve will shift to the left. In the short run, since SRAS curve is horizontal due to price stickiness, Y will fall without any change in P. However, in the long run, since AS curve is vertical, Y will go back to the original level while P will fall.

![Diagram]

b) The Federal Reserve should raise the money supply (in the short run and long run), which will shift the AD curve right again (or prevent it from shifting left).

Problem 3:
a) The tax multiplier is \( \frac{0.8}{1-0.8} = 4 \). So output falls by 4*10million = 40 million. A tax rise lowers disposable income, lowering consumption initially by the marginal propensity to consume. But this fall in consumption lowers planned expenditure and lowers income for someone else. So consumption falls yet further. This cycle repeats over and over. In equilibrium, output will fall by the tax multiplier times the tax change.
b) Since I and G are fixed, the change in output must all be in the consumption category, so consumption falls 40 million.
c) The government spending multiplier here is \( \frac{1}{1-0.8} = 5 \). To counteract the 40 million fall in output, we need a change in G that would raise output 40 million:

40 million = 5*(\( \Delta G \)). So G must rise 8 million.