Macroeconomics 1
Problem set 3

Tick the correct alternatives (more than one may be correct) or write your answer in the space provided. Unless otherwise stated, the notation and behavioural assumptions are the same as in the lectures and textbook.

1. Consider the shocks below. In which case the horizontal shift in the IS curve equals 50 times the multiplier?

   a) Because of a change in consumer confidence desired consumption increases by 50.

   b) Because of a change in income desired consumption increases by 50.

   c) Because of a change in tastes desired consumption increases by 50.

   d) Because of a change in tastes there is an increase in the purchase of shares by 50.

2. Assume consumption is independent from income and investment is independent from the interest rate. True or false.

   a) There is no IS curve.

   b) The IS curve is perfectly inelastic.

   c) The IS curve is perfectly elastic.

   d) A change in the rate of interest will have no effect on real income.

3. Assume that all firms are identical and that the marginal product of labour is constant and equal to 1. It follows that firms set prices according to

$$P = (1 + \mu)W \tag{5}$$

   Firms' mark up over costs μ is 0.05 and the wage setting equation is

$$\frac{W}{P} = \frac{z}{u} \tag{6}$$

   where $\bar{z} = 0.1$ and $u = 1 - N/\bar{L}$ is the unemployment rate. The labour force is $\bar{L} = 1000$, N is the number of employed workers and output is produced according to the production function $Y = N$.

   a) Write down the values for the equilibrium real wage __________, output __________ and unemployment rate __________.

   b) Suppose that the mark up of prices over costs increases to 10%. What happens to the equilibrium value of the following variables?
   i) The real wage increases/decreases
   ii) Output increases/decreases
   iii) The unemployment rate increases/decreases

c) Suppose that $\bar{z}$ falls to 0.05 while the mark up stays unchanged at its initial value $\mu = 0.05$. What happens to the equilibrium value of the following variables?

i) The real wage increases/decreases

ii) Output increases/decreases

iii) The unemployment rate increases/decreases

4. Same set up as above. The nominal wage W halves. Which of the following statements is correct?

a) Equilibrium employment falls

b) Equilibrium output increases

c) The equilibrium price level doubles