QUEEN MARY
UNIVERSITY OF LONDON

B.Sc. (Econ) by course unit examination

Macroeconomics 1 - ECN106 - MOCK EXAM

Date: ? May ????, ??:?? .m.
Duration: Two hours

Answer both questions 1 and 2 and either question 3 or 4. In all of your answers you are expected to support your claims using the closed-economy models that have been introduced during the course.

1. (40 marks) The consumption and investment functions are given by

$$C = 150 + 0.8(Y - \bar{T}) \tag{1}$$
$$I = 50 + 0.08Y - 1000r \tag{2}$$

where Y is output and r the real interest rate. Government expenditure and taxes are exogenous and equal respectively to $\bar{G} = 50$ and $\bar{T} = 100$. The LM curve is given by

$$\frac{\bar{M}}{P} = Y(1 - r) \tag{3}$$

where P is the price level and $\bar{M} = 1900$ is the nominal money supply. The economy is initially in equilibrium with output at its medium run equilibrium level $Y_n = 1000$.
The government increases its expenditure $\bar{G}$ by 50 and finances the increase by raising taxes $\bar{T}$ by the same amount.

a) (15 marks) Suppose that in the short run the price level is fixed at its original, long-run equilibrium value. Derive graphically, the effect of the policy change on equilibrium output, the real interest rate, investment and the price level in the short run.

b) (25 marks) Derive both graphically and numerically the long-run equilibrium values of output, the real interest rate, investment and the price level before and after the shock.

2. (40 marks) State whether the statements below are true or false and give a brief (no more than half a page for each item) explanation in support of your answers.

   a) In the long run, the real money supply is determined on the goods market.

   b) Increased product market competition raises the unemployment rate equilibrium value.

   c) If investment is exogenous, fiscal policy cannot affect national saving.

   d) If consumption and investment are exogenous the Keynesian multiplier equals one.

3. (20 marks) Suppose the ratio of bank reserves to deposits increases. Derive the effect of such increase on the equilibrium values of output, the real interest rate and prices in the short and long run.

4. (20 marks) Consider the economy described by equations (1), (2) and (3) in question 1 above. The government wants to increase investment while leaving the short-run equilibrium level of output unchanged. Describe the policy mix necessary to achieve the government objectives. Outline the economic intuition behind your policy proposal.

End of examination/Dr. Giulio Fella