## **Question 1: IS/MP Model**

Describe how, if at all, each of the following developments affect the IS and/or MP curves. For these questions, you may assume that the price level is fixed at Pbar. On your diagrams, you should illustrate both the money market and the IS/MP diagram (horizontally). Also, for these questions, draw the relevant change in either the money market (for an MP shift) or the goods market (for an IS shift).

- a) The central bank changes its monetary policy rule so that it sets a lower level of the real interest rate at a given level of output than before.
- b) Government purchases fall, and at the same time the Federal Reserve changes its policy rule to set a higher real interest rate at a given level of output than before.
- c) The demand for money increases (consumer preferences change, so that at a given level of i and Y they want to hold more real balances than before).
- d) The government decides to vary its purchases in response to the state of the economy, decreasing G when Y rises and increasing it when Y falls.
- e) The Federal Reserve changes its policy rule to be more aggressive in responding to changes in output. Specifically, it decides that it will increase the real interest rate by more than before if output rises, and cut it by more than before if output falls.

## **Question 2: IS/MP Model – Monetary Policy Strategy**

Describe how, if at all, each of the following affects the slope and/or position of the IS/MP curves. For these questions, you need only to illustrate the money market and the IS/MP diagram (horizontally).

- a) The central bank responds only to inflation, not output.
- b) The central bank responds only to output, not inflation.
- c) The central bank decides to increase interest rates, for any given value of inflation and output.

## **Question 3: IS/MP/IA Model**

Describe how, if at all, each of the following developments affects the AD and/or IA curves. In your answers, you should illustrate both the IS/MP diagram and the AD/IA diagram (stacked vertically). You need only illustrate short-run outcomes.

- a) Individuals become more optimistic about their future incomes, and therefore consume more out of a given amount of disposable income than before.
- b) Anti-trust laws are relaxed, so firms charge higher prices for a given level of costs.
- c) The demand for money increases.
- d) Investment demand becomes less sensitive to changes in the interest rate (Hint: this does NOT involve a shift).
- e) Oil prices increase, and at the same time consumption for a given level of disposable income falls.

## Question 4: IS/MP/IA Model – Fiscal and Monetary Policy Preview

Describe how, if at all, each of the following developments affects the economy in the short run <u>AND</u> in the long run. Label the diagrams as follows:

Point A: Initial equilibrium

Point B: New Short-run equilibrium

Point C: New Long-run equilibriumAssume that output is initially at its natural rate. In your answers, you should illustrate both the IS/MP

diagram and the AD/IA diagram (stacked vertically). You must clearly label short-run and long-run outcomes. In addition, state what happens to each of the following variables in both the short run and long run: output (Y), interest rates (i), consumption (C), investment (I), net exports (CF), and inflation ( $\pi$ ).

- a) The government cuts taxes.
- b) The government cuts government spending.
- c) The government cuts taxes and government spending by the same amount.
- d) Based on your analysis from c) above, in what sense would a balance budget amendment be harmful to the economy in the short run? What are the benefits of such an amendment?
- e) The central bank decides to increase interest rates, for any given value of inflation and output.
- f) Based on your analysis from e) above, why might the central bank implement the policy described in part a)?