2023

AP® Macroeconomics

Free-Response Questions
Set 2

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MACROECONOMICS

SECTION II

Total Time—1 hour

Reading Period—10 minutes

Writing Period—50 minutes

3 Questions

Directions: You are advised to spend the first 10 minutes reading all of the questions and planning your answers. You will then have 50 minutes to answer all three of the following questions. You may begin writing your responses before the reading period is over. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes. If the question prompts you to "Calculate," you must show how you arrived at your final answer. Use a pen with black or dark blue ink.

You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

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1. The economy of Northland is in short-run equilibrium with an actual unemployment rate of 7% and an actual inflation rate of 1%. The natural unemployment rate in Northland is 5%.

   (a) Using the relevant numerical values given, draw a correctly labeled graph of the short-run and long-run Phillips curves. Label the current short-run equilibrium point as X. Plot the relevant numerical values provided on the graph.

   (b) Is the expected inflation rate greater than, less than, or equal to 1% ? Explain.

   (c) Assume the marginal propensity to consume is 0.9.

   - (i) If the government decreases income taxes by $20 billion, calculate the maximum change in aggregate demand. Show your work.
   - (ii) If instead the government increases spending by $20 billion, calculate the maximum change in aggregate demand. Show your work.

   (d) On your graph in part (a), show a possible new short-run equilibrium point labeled Z that would result if the government increases spending and there is no change in inflationary expectations.

   (e) How would an increase in unemployment compensation affect aggregate demand in the short run? Explain.

   (f) Assume instead the government takes none of the preceding policy actions. (Northland is still in short-run equilibrium; the actual unemployment rate is 7%, the actual inflation rate is 1%, and the natural unemployment rate is 5%.) What will happen to each of the following in the long run?

   - (i) The short-run aggregate supply curve. Explain.
   - (ii) The short-run Phillips curve
   - (iii) The actual unemployment rate

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

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2. The United States and South Africa are trading partners with flexible exchange rates, and the United States current account balance with South Africa is zero.

   (a) Assume real income in the United States increases while real income in South Africa remains the same. Will United States net exports increase, decrease, or remain unchanged? Explain.

   (b) Based on your answer to part (a), what will happen to each of the following?

   (i) The capital and financial account balance in the United States
   (ii) Actual unemployment in South Africa in the short run. Explain.

   (c) The currency of the United States is the dollar (USD), and the currency of South Africa is the rand (ZAR). Draw a correctly labeled graph of the foreign exchange market for the rand and show the effect of the increase in real income in the United States on the international value of the rand.

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3. Assume that the economy of country Zen is in long-run macroeconomic equilibrium.

(a) Draw a correctly labeled graph of the aggregate demand, short-run aggregate supply, and long-run aggregate supply curves, and show each of the following.

(i) The current equilibrium real output and price level, labeled Y_1 and PL_1, respectively

(ii) The full-employment output, labeled Y_F

(b) On your graph in part (a), show the short-run effect of an increase in consumer confidence. Label the new equilibrium real output Y_2 and the new equilibrium price level PL_2.

(c) Assume that the banking system in Zen has ample reserves. Suppose that the central bank's goal is to maintain a stable price level at PL_1. Based on the change in the price level shown in part (b), identify one specific monetary policy action the central bank would take to achieve its goal.

(d) Based on the monetary policy action identified in part (c), will real output increase, decrease, or stay the same in the short run? Explain.

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STOP

END OF EXAM

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