PRACTICE EXAM

APEconLabs

AP® Macroeconomics

Free-Response Questions

Practice Set 1

Developed by APEconLabs

Original practice material modeled on the format of the AP Macroeconomics exam. Section II — 3 free-response questions — suggested time 1 hour. A complete answer key and scoring guidelines are included at the end of this document.

MACROECONOMICS
SECTION II

TOTAL TIME — 1 HOUR · 3 QUESTIONS

Directions

Section II has 3 questions and lasts 1 hour. You may use the available paper for scratch work and planning, but you must write your answers in the free-response booklet. Label parts (e.g., A, B, C) and sub-parts (e.g., i, ii, iii) as needed. Use a pencil or a pen with black or dark blue ink to write your responses.

Include correctly labeled graphs, if useful or required, in explaining your answers. A correctly labeled graph 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.

A calculator is allowed in this section.

You may pace yourself as you answer the questions in this section, or you may use these optional timing recommendations: spend the first 10 minutes reading all of the questions and planning your answers. Then spend about 25 minutes on Question 1 and about 12 minutes each on Questions 2 and 3.

You can go back and forth between questions in this section until time expires.

Note: This is original practice material developed by APEconLabs. It mirrors the structure and concept coverage of the AP Macroeconomics free-response section and is intended for teacher and student use in the classroom.

1. Assume that the economy of Calderon is in long-run equilibrium.

A. Draw a correctly labeled graph of the short-run and long-run Phillips curves for the economy of Calderon, and label the long-run equilibrium point as Z.

B. Assume that businesses in Calderon substantially increase their investment in new factories and equipment.

i. Will real output in Calderon increase, decrease, or remain the same in the short run? Explain.

ii. Assuming no change in inflationary expectations, on your graph in part A, show the short-run effect of the increased investment on Calderon's economy, labeling the new short-run equilibrium point as W.

C. Calderon and Sevara are trading partners with flexible exchange rates. The currency of Calderon is the Calderon peso (CDP), and the currency of Sevara is the Sevaran dinar (SVD). Assume that Calderon's capital and financial account (CFA) balance is zero. Now assume that Calderon imposes new tariffs on imports from Sevara. Draw a correctly labeled graph of the foreign exchange market for the Calderon peso, and show the effect of the tariffs on the SUPPLY of the Calderon peso and the international value of the Calderon peso.

D. Based solely on the change in the international value of the Calderon peso shown in part C, will Calderon's net exports increase, decrease, or remain the same in the short run?

E. Based on the change in net exports identified in part D, what will happen to each of the following in the short run?

i. The capital and financial account (CFA) balance in Calderon. Explain.

ii. Employment in Calderon

F. Assume the central bank of Calderon wants to return the Calderon peso to its international value before the imposition of the tariffs. Would the central bank buy or sell Calderon pesos in the foreign exchange market? Explain.

2. The economies of Country M and Country T are currently in short-run equilibrium at output levels below full employment. Both countries intend to use monetary policy to close their output gaps. Country M has a banking system with limited reserves, and Country T has a banking system with ample reserves.

A. What open-market operation would Country M implement to move the economy toward full employment in the short run?

B. What specific monetary policy action would Country T implement to move the economy toward full employment in the short run?

C. Draw a correctly labeled graph of the reserve market in Country T, and show the effect of the monetary policy action identified in part B on the policy rate.

D. Assume instead that no policy actions are taken in Country T and that the economy remains in short-run equilibrium at an output level below full employment. Will short-run aggregate supply in Country T increase, decrease, or remain the same as the economy self-adjusts in the long run? Explain.

3. The table provided shows the quantities and unit prices of notebooks, milk, and jackets, the only three goods produced in the country of Harport in 2023 and 2024. Assume that 2023 was the base year.

	Notebooks	Milk	Jackets
Unit Prices in 2023	$6	$3	$20
Unit Prices in 2024	$7	$2	$25
Quantities Produced in 2023 and 2024	40	90	25

A. Was the real GDP in 2023 in Harport greater than, less than, or equal to the nominal GDP in 2023? Explain.

B. Calculate the real GDP in Harport in 2024. Show your work.

C. Assume that Harport was in short-run equilibrium in 2024 and that POTENTIAL real GDP was $900 in 2024. Draw a correctly labeled graph of the aggregate demand, short-run aggregate supply, and long-run aggregate supply curves for Harport in 2024, and show each of the following.

i. The equilibrium real output and price level, labeled Y_1 and PL_1, respectively

ii. The full-employment output, labeled Y_F

D. Assume the marginal propensity to consume in Harport is 0.75. Calculate the minimum change and state the direction of change in government spending required to close the output gap in the short run in Harport. Show your work.

STOP · END OF SECTION II

Answer Key
& Scoring Guidelines

Practice Set 1

Model responses below indicate the economic reasoning and key terms expected for full credit. On the exam, correctly labeled graphs are required where a question asks students to "draw" or "show"; graph requirements are described in words here.

Question 1

A. The vertical axis is the inflation rate and the horizontal axis is the unemployment rate. The short-run Phillips curve (SRPC) is downward sloping; the long-run Phillips curve (LRPC) is vertical at the natural rate of unemployment. Point Z is at the intersection of the SRPC and the LRPC.

B.
i. Increase. The increase in investment spending raises aggregate demand, which increases real output in the short run.

ii. Point W is shown on the same short-run Phillips curve, up and to the left of point Z — a lower unemployment rate and a higher inflation rate (a movement along the existing SRPC).

C. Foreign exchange market for the Calderon peso: vertical axis = exchange rate (price of the peso in dinars), horizontal axis = quantity of pesos. The tariffs reduce Calderon's imports from Sevara, so Calderon residents need fewer dinars and supply fewer pesos to the foreign exchange market. The supply of pesos shifts left (decreases), and the international value of the peso increases (the peso appreciates).

D. Decrease. The appreciation of the peso makes Calderon's exports more expensive to foreigners and imports cheaper for Calderon residents, so net exports decrease.

E.
i. The CFA balance will increase. Because the current account and the capital and financial account sum to zero, a decrease in net exports (a fall in the current account) is offset by an increase in the CFA balance.

ii. Employment will decrease. The decrease in net exports decreases aggregate demand, which decreases real output and therefore employment.

F. Sell. To return the peso to its lower pre-tariff value (to depreciate the peso), the central bank would sell pesos in the foreign exchange market. This increases the supply of pesos and decreases the international value of the peso.

Question 2

A. An open-market purchase — Country M's central bank would buy government bonds/securities.

B. Country T would decrease (lower) the administered interest rate it pays on reserve balances — lowering its policy rate. (Accept: lower the discount rate.)

C. Reserve market for Country T (ample reserves): vertical axis = nominal interest rate (policy rate), horizontal axis = quantity of reserves. The vertical supply of reserves intersects the flat (horizontal) portion of the demand curve at the administered rate. Lowering the administered rate shifts that horizontal portion downward, and the policy rate decreases.

D. Increase. With the economy below full employment (a recessionary gap), nominal wages and other input prices fall over time, lowering production costs. Short-run aggregate supply increases (shifts right) until the economy returns to full-employment output.

Question 3

A. Equal. In the base year (2023), real GDP is calculated using base-year prices, which are the same as the current 2023 prices. Therefore real GDP equals nominal GDP in the base year.

B. Real GDP in 2024 = (2024 quantities × 2023 base-year prices) = (40 × $6) + (90 × $3) + (25 × $20) = $240 + $270 + $500 = $1,010.

C. AD is downward sloping, SRAS is upward sloping, and LRAS is vertical. Because equilibrium real output ($1,010) exceeds potential output ($900), the AD–SRAS intersection (Y_1, PL_1) is to the RIGHT of LRAS. Y_F is shown at $900, where LRAS is vertical.

i. Y_1 and PL_1 are at the AD–SRAS intersection, to the right of LRAS.

ii. Y_F is at the LRAS ($900).

D. The economy has an inflationary gap: $1,010 - $900 = $110 above potential. Spending multiplier = 1 / (1 - MPC) = 1 / (1 - 0.75) = 4. Required change in government spending = -$110 / 4 = -$27.50. Government spending must DECREASE by $27.50.