PRACTICE EXAM

APEconLabs

AP® Macroeconomics

Free-Response Questions

Practice Set 3

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 Solmark is in equilibrium with an actual unemployment rate equal to the natural rate of unemployment.

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. Assume that consumer spending in Solmark decreases from $90,000 to $78,000 as a result of a decrease in disposable income in Solmark from $120,000 to $104,000.

i. Calculate the marginal propensity to consume in Solmark. Show your work.

ii. Show the short-run effect of the decrease in consumer spending in Solmark on your graph in part A, labeling the new equilibrium real output and price level Y_2 and PL_2, respectively.

C. Following the decrease in consumer spending, explain how the economy would adjust in the long run in the absence of any policy actions.

D. The central bank of Solmark is concerned about the short-run effects of the decrease in consumer spending on the broader economy and is considering taking action rather than waiting for the long-run adjustment process. Assuming the banking system in Solmark has ample reserves, identify a specific monetary policy action the central bank of Solmark would take to increase consumer spending.

E. Draw a correctly labeled graph of the reserve market in Solmark, and show the effect of the monetary policy action identified in part D on the policy rate.

F. How would the change in the policy rate shown on your graph in part E affect each of the following in Solmark in the short run?

i. The quantity of national savings

ii. Unemployment. Explain.

2. The table provided shows the quantity and price of coffee and shoes, the only two goods produced and consumed in the country of Novaria, in year 1 and year 2. Assume that year 1 is the base year.

	Year 1 Price	Year 1 Quantity	Year 2 Price	Year 2 Quantity
Coffee	$10	14	$15	20
Shoes	$4	18	$3	25

A. Calculate the nominal GDP in year 2. Show your work.

B. Calculate the GDP deflator in year 2. Show your work.

C. What was the numerical value of the inflation rate from year 1 to year 2?

D. Assuming that the expected inflation rate between years 1 and 2 was 3%, were each of the following better off, worse off, or unaffected as a result of the economic conditions between year 1 and year 2?

i. People living on a fixed income

ii. Borrowers with fixed interest-rate loans. Explain.

3. Assume that Egypt has a cyclical unemployment rate of 5% and a balanced capital and financial account (CFA).

A. Identify a specific fiscal policy action that Egypt's government would take to bring its economy to full employment.

B. Based solely on the short-run change in real output resulting from the fiscal policy action identified in part A, what will happen to Egypt's net exports? Explain.

C. Assume that Egypt and India are trading partners with flexible exchange rates. Egypt's currency is the Egyptian pound (EGP), and India's currency is the rupee (INR). Draw a correctly labeled graph of the foreign exchange market for the Egyptian pound relative to the rupee, and show the effect of the change in net exports identified in part B on the supply of the Egyptian pound and the international value of the Egyptian pound.

D. How will the change in net exports identified in part B affect Egypt's capital and financial account (CFA)? Explain.

STOP · END OF SECTION II

Answer Key
& Scoring Guidelines

Practice Set 3

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. AD is downward sloping, SRAS is upward sloping, and LRAS is vertical, and all three intersect at the same point. Because actual unemployment equals the natural rate, the economy is at full employment.

i. Y_1 and PL_1 are at the common intersection of AD, SRAS, and LRAS.

ii. Y_F equals Y_1 (the economy is already at full employment).

B. i. MPC = change in consumption / change in disposable income = (78,000 - 90,000) / (104,000 - 120,000) = (-12,000) / (-16,000) = 0.75.

ii. The decrease in consumer spending shifts AD to the left. The new equilibrium (Y_2, PL_2) is at a lower real output and a lower price level than the original (Y_1, PL_1).

C. The decrease in AD creates a recessionary gap. Unemployment is above the natural rate, so nominal wages and input prices fall, lowering production costs. Short-run aggregate supply increases (shifts right) until the economy returns to full-employment output at a lower price level.

D. Decrease (lower) the interest rate paid on reserves — the administered rate / policy rate. (Accept: lower the discount rate.)

E. Reserve market (ample reserves): the vertical supply of reserves intersects the flat portion of the demand curve at the administered rate. Lowering the administered rate shifts that horizontal portion downward; the policy rate decreases.

F. i. The quantity of national savings will decrease. The lower real interest rate reduces the quantity of savings supplied.

ii. Unemployment will decrease. The lower interest rate increases investment and consumption, which increases aggregate demand and real output, so firms hire more workers.

Question 2

A. Nominal GDP in year 2 = (year 2 prices × year 2 quantities) = ($15 × 20) + ($3 × 25) = $300 + $75 = $375.

B. Real GDP in year 2 = (year 1 base-year prices × year 2 quantities) = ($10 × 20) + ($4 × 25) = $200 + $100 = $300. GDP deflator in year 2 = (nominal GDP / real GDP) × 100 = ($375 / $300) × 100 = 125.

C. The GDP deflator in year 1 (the base year) is 100 and is 125 in year 2. Inflation rate = (125 - 100) / 100 × 100 = 25%.

D. Actual inflation (25%) was much higher than the expected inflation rate (3%) — inflation was unexpectedly high.

i. Worse off. People living on a fixed income see the purchasing power of that income fall by far more than they anticipated.

ii. Better off. Because actual inflation exceeded expected inflation, borrowers repay their fixed-rate loans with money worth less than expected; the real value of their debt falls, benefiting borrowers at the expense of lenders.

Question 3

A. Increase government spending and/or decrease taxes (expansionary fiscal policy) to close the recessionary gap indicated by the 5% cyclical unemployment.

B. Net exports will decrease. The expansionary fiscal policy increases real output and income; higher income increases imports, so net exports decrease.

C. Foreign exchange market for the Egyptian pound (priced in INR per pound): the decrease in net exports means Egyptians buy more imports and supply more pounds to the foreign exchange market. The supply of the Egyptian pound shifts right (increases), and the international value of the pound decreases (the pound depreciates).

D. The CFA balance will increase. A decrease in net exports decreases the current account balance; because the current account and the capital and financial account sum to zero, the CFA balance increases (moves toward surplus).