2024

AP® Macroeconomics

Scoring Guidelines
Set 1

Question 1: Long — 10 points

(a) Calculate the natural rate of unemployment as 5% and show your work. **1 point**

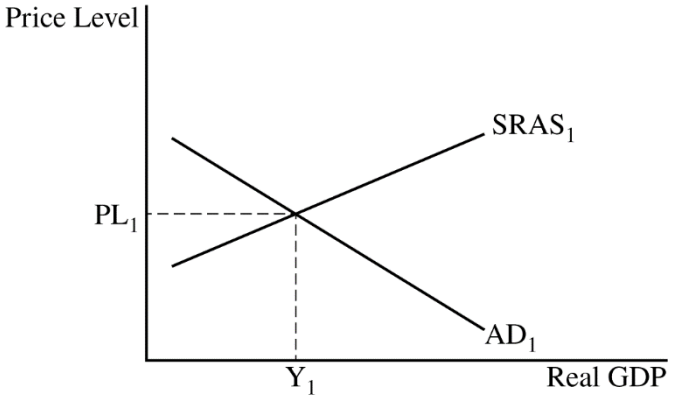
Natural UER = Actual UER – Cyclical UER = 8% – 3% = 5%

OR

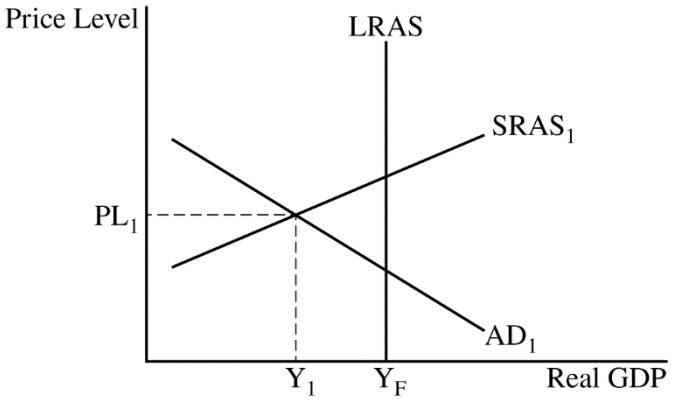
Structural UER = Actual UER – Cyclical UER – Frictional UER = 8% – 3% – 4% = 1%

Natural UER = Frictional UER + Structural UER = 4% + 1% = 5%

(b) Draw a correctly labeled aggregate demand–aggregate supply graph that shows PL_1 and Y_1 at the intersection of the aggregate demand (AD) and short-run aggregate supply (SRAS) curves. **1 point**

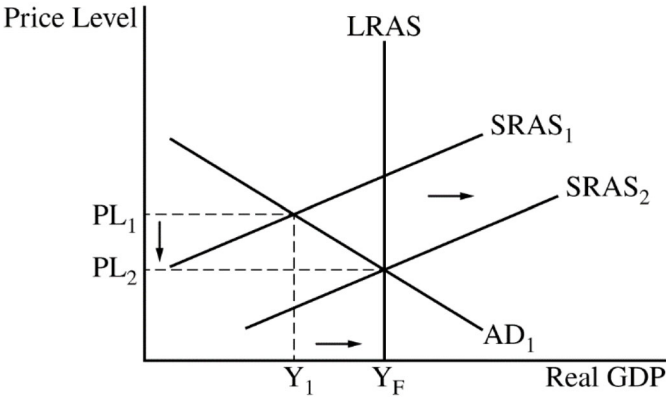
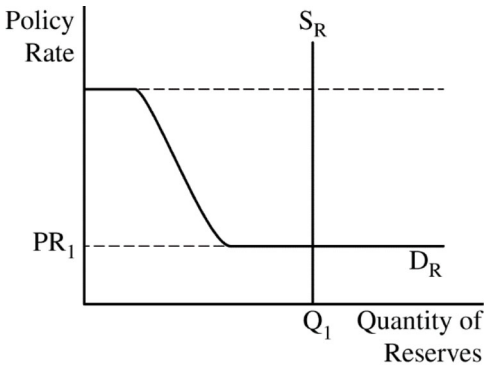


For the second point, the graph must show a vertical long-run aggregate supply (LRAS) curve to the right of Y_1 and label the full-employment output Y_F. **1 point**

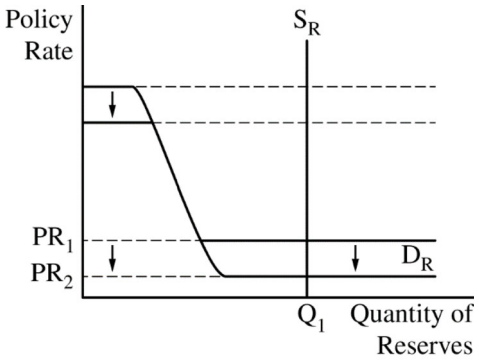


Total for part (b) **2 points**

(c) (i) Explain that input prices (e.g., nominal wages) and/or inflationary expectations will decrease, causing SRAS to increase until it reaches full employment. **1 point**

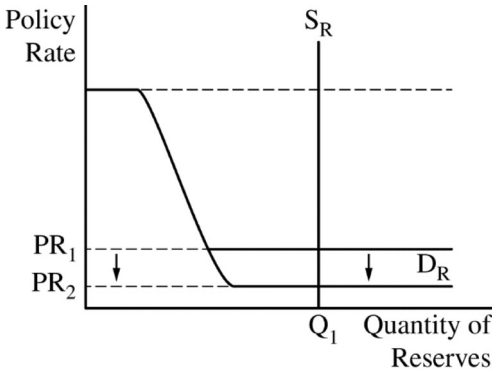
(ii)	On the graph from part (b), show how Alpha's economy will adjust to full employment in the long run by shifting the SRAS curve to the right until it intersects the AD and LRAS curves at a lower price level, labeled PL_2.  	**1 point**
	Total for part (c)	**2 points**
(d)	State that the central bank would decrease its administered interest rates or decrease interest on reserves.	**1 point**
(e)	Draw a correctly labeled graph of the reserve market with the supply curve intersecting the demand curve in the range of ample reserves.  	**1 point**

	For the second point, the graph must show a decrease in the administered interest rates, resulting in a decrease in the policy rate.	**1 point**



OR

For the second point, the graph must show a decrease in the lower bound of the demand curve for reserves, resulting in a decrease in the policy rate.



	Total for part (e)	**2 points**
(f)	For the first point, state that the price of previously issued bonds will increase and the price level will increase.	**1 point**
	For the second point, explain that the decrease in nominal interest rates will increase interest-sensitive spending (consumption, investment, or net exports), which will increase aggregate demand.	**1 point**
	Total for part (f)	**2 points**
	Total for question 1	**10 points**

Question 2: Short — 5 points

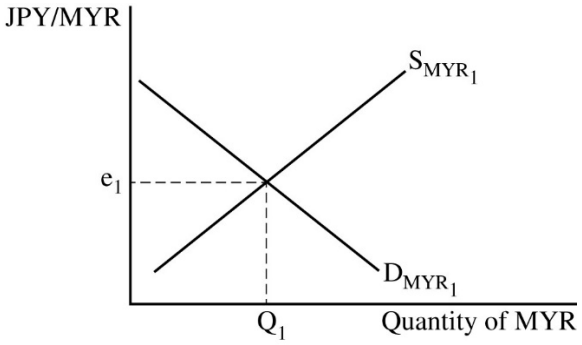
(a)	Calculate real GDP in Louland in year 2 as 900,000 and show your work. $$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}} \times 100 = \frac{1{,}035{,}000}{115} \times 100 = 900{,}000$$	**1 point**
(b)	State that the demand for money would increase and the nominal interest rate would increase.	**1 point**
(c)	State that the standard of living of the average citizen in Louland decreased from year 1 to year 2 and explain that the real GDP per capita in year 1 was 800 and the real GDP per capita in year 2 was 750.	**1 point**
(d)	State that the inflation rate from year 1 to year 2 was 15%.	**1 point**
(e)	State that real wages decreased and explain that nominal wages increased by less than the inflation rate (10% < 15%).	**1 point**
	Total for question 2	**5 points**

Question 3: Short — 5 points

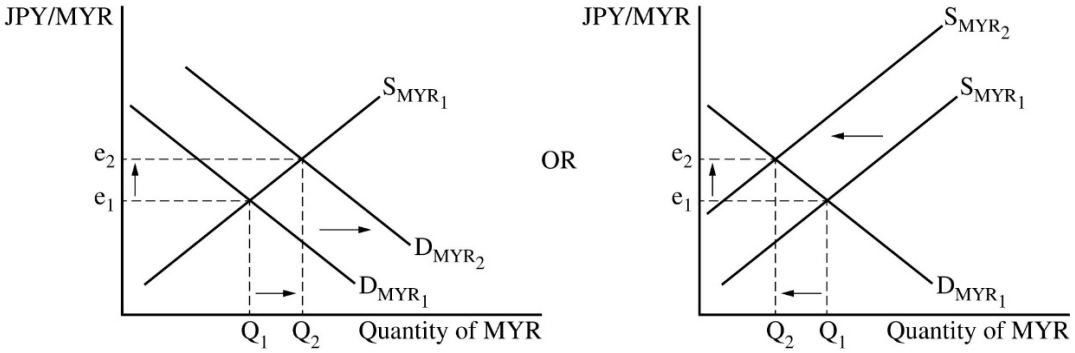
(a) State an increase in government spending, a decrease in taxes, or an increase in transfer payments. **1 point**

(b) State that the real interest rate will increase and explain that government borrowing will increase, which will increase the demand for loanable funds (or decrease the supply of loanable funds). **1 point**

(c) Draw a correctly labeled graph of the foreign exchange market for the ringgit. **1 point**



For the second point, the graph must show an increase in the demand for the ringgit (or a decrease in the supply of the ringgit), resulting in an appreciation of the ringgit. **1 point**



Total for part (c) **2 points**

(d) State that Malaysia's imports will increase and explain that the appreciation of the ringgit will make Japanese goods relatively less expensive than they were before. **1 point**

Total for question 3 **5 points**