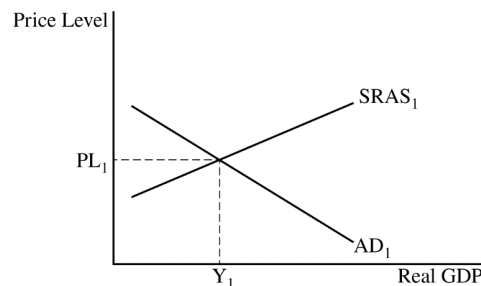
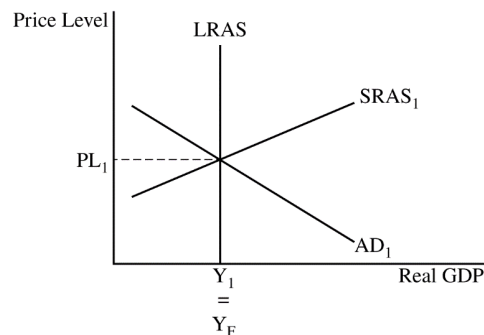


Question 1: Long**10 points**

- (a) 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**



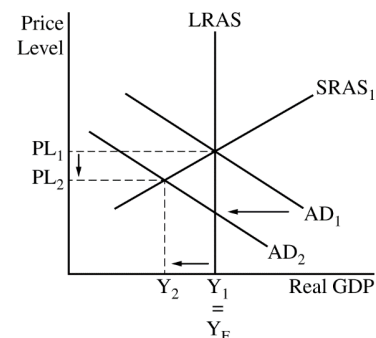
For the second point, the graph must show a vertical long-run aggregate supply (LRAS) curve at equilibrium real output $Y_1 = Y_F$. **1 point**

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

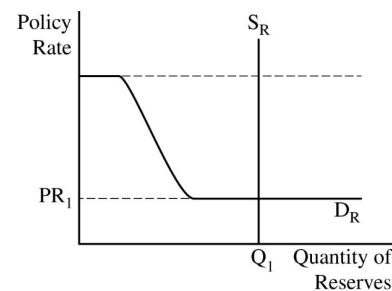
- (b) (i) Calculate the marginal propensity to consume as 0.4 and show your work. **1 point**

$$MPC = \frac{\Delta \text{Consumer Spending}}{\Delta \text{Disposable Income}} = \frac{\$100,000 - \$110,000}{\$110,000 - \$135,000} = \frac{-\$10,000}{-\$25,000} = 0.4$$

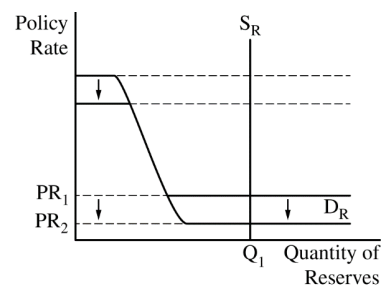
- (ii) On the graph from part (a), show the short-run effect of the decrease in consumer spending as a leftward shift of the AD curve, resulting in a decrease in the price level to PL_2 and a decrease in real output to Y_2 . **1 point**

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

- (c) 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**
- (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**

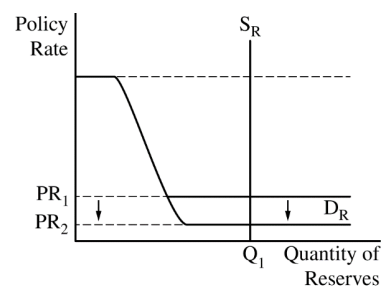


For the second point, the graph must show a decrease in the administered interest rates, resulting in a decrease in the policy rate. **1 point**



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 quantity of national savings would decrease and the unemployment rate would decrease. **1 point**

For the second point, explain that the decrease in nominal interest rates will increase interest-sensitive spending (consumption, investment, or net exports), causing an increase in aggregate demand and real output. **1 point**

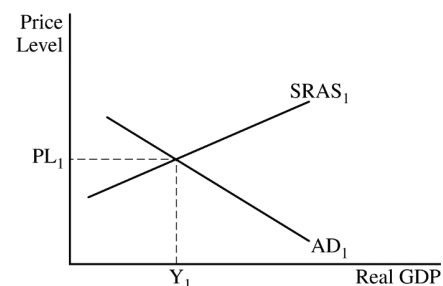
Total for part (f) 2 points

Total for question 1 10 points

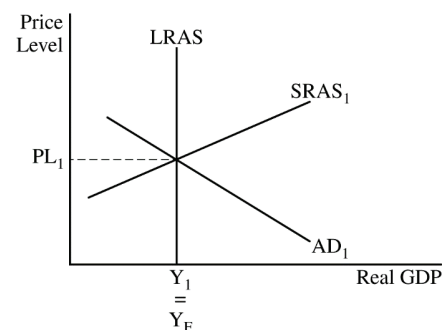
Question 3: Short

5 points

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

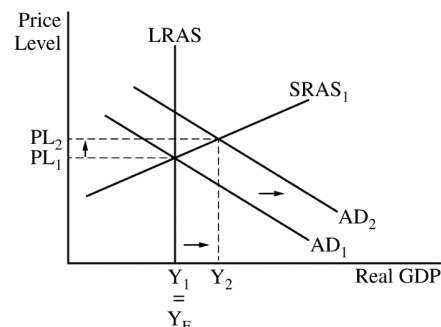


For the second point, the graph must show a vertical long-run aggregate supply curve at equilibrium real output $Y_1 = Y_F$. **1 point**



Total for part (a) 2 points

- (b) On the graph from part (a), show the short-run effect of the increase in consumer confidence as a rightward shift of the aggregate demand curve, resulting in an increase in real output, labeled Y_2 , and an increase in the price level, labeled PL_2 . **1 point**



- (c) State that the central bank would increase its administered interest rates or increase interest on reserves. **1 point**
- (d) State that real output will decrease and explain that the increase in interest rates will decrease interest-sensitive spending (consumption, investment, or net exports), which decreases aggregate demand. **1 point**

Total for question 3 5 points

Question 3: Short 5 points

- (a) (i) State that the government budget will move into deficit in the short run and explain that tax revenues (T) will decrease and transfer payments (TR) will increase. **1 point**
- (ii) State that the government debt will increase. **1 point**
- Total for part (a) 2 points**
- (b) Identify an increase in taxes or a decrease in government spending. **1 point**
- (c) State that the actual unemployment rate will increase in the short run and explain that aggregate demand will decrease, which will decrease real output. **1 point**
- (d) State that the government's efforts to maintain a balanced budget made Geeland's recession more severe in the short run and explain that in order to maintain a balanced budget, the government had to implement contractionary fiscal policy during a recession. (It is also acceptable to explain that the government's efforts to maintain a balanced budget will decrease real output or aggregate demand and that unemployment will increase.) **1 point**

Total for question 3 5 points