Question 1 on page 438 (15 points)

Answer:
The response to a temporary change in government spending in the real business cycle model is the same as the response to such a disturbance in the monetary intertemporal model, as the two models are equivalent. See Figure 9.17 on page 342. Government spending shocks in this model wrongly predict that consumption, investment, and the real wage are countercyclical. In response to a temporary increase in government spending, output increases and the real interest rate increases. Because the net effect on money demand is ambiguous, the effect on the price level is also ambiguous. Therefore, there can be no contradiction of model’s predictions on the cyclical behavior of the price level.

Question 7 on page 439 (15 points)

Answer:
The reduction in the demand for leisure implies a rightward shift in labor supply. This shift in labor supply implies equilibrium in the labor market with less employment and a decreased real wage. The aggregate supply curve therefore shifts to the left. The increase in the demand for consumption goods shifts the aggregate demand curve to the right. Therefore, in the good state, output increases and the real interest rate decreases. In the bad state, output decreases and the real interest rate increases. That said, this preference shift makes the good equilibrium better and the bad equilibrium worse.
The effects of the decrease in the capital stock depend on the specific model we are working with. The effect of the decrease in capital in the real business cycle is depicted in the figure for question 4 on page 402.

The real interest rate unambiguously increases. The diagram depicts a case in which real output decreases. In this case, the demand for money unambiguously decreases, and so a decrease in the money supply is required to maintain price stability. If, on the other hand, the increase in investment demand is strong enough, then the aggregate demand curve may shift to the right by more than the shift to the left in aggregate supply. In this case, real output increases. If real output increases enough, then the demand for money may increase. This case would require an increase in the money supply.

In the coordination failure model, the situation is more complex. The decrease in the capital stock shifts the aggregate production function downward, as in the figure below. The new aggregate production function is flatter, so that the aggregate labor demand curve shifts downward. Employment would therefore increase. The increase in employment coupled with the decrease in the capital stock, may either increase or decrease the level of output. If, as depicted in the figure below, output on net decreases, then the aggregate supply curve shifts to the left.
The decrease in the capital stock also shifts the aggregate demand curve to the right. If the aggregate supply curve shifts to the left, then the situation is as depicted in the figure below. In the bad equilibrium, output decreases and the real interest rate increases. Money demand would therefore decrease, and the money supply would need to decrease to maintain price stability. In the good equilibrium, output increases and the real interest rate decreases. Money demand would increase, and so the money supply would need to increase to maintain price stability.