Macroeconomics Unit 3
Free Response Questions

FRQ #1- Assume that the United States economy currently has only frictional and structural unemployment.

(a) Draw a correctly labeled graph of the aggregate demand, short-run aggregate supply, and long-run aggregate supply and label the current equilibrium output and price levels, Y1 and PL1, respectively.

(b) Assume that the government increases spending on infrastructure without raising taxes.
- (i) On your graph in part (a), show how the government action affects aggregate demand in the short run.
- (ii) Will this government action cause employment in the short run to increase, decrease, or stay the same?
- (iii) Explain how the economy will adjust to full employment in the long run assuming there is no policy action.

(c) Assume that Canada, a major trading partner for the United States, experiences a recession. Will unemployment in the United States increase, decrease, or stay the same? Explain.

(d) Assume that the central bank of the United States decreases interest rates.
- (i) In the short run, will investment increase, decrease, or stay the same. Explain.
- (ii) In the long run, will the long-run aggregate supply increase, decrease, or stay the same.

FRQ #2- Country X has an open economy that currently has a negative output gap.

(a) Draw a correctly labeled graph of the short-run aggregate supply, aggregate demand, and long-run aggregate supply curves and show each of the following.
- (i) The equilibrium price level and output, labeled PL1 and Y1, respectively.
- (ii) Full-employment output, labeled YF.

(b) Would an increase in imports by Country X return the economy to full employment? Explain.

(c) Assume that the government and central bank of Country X take no policy actions.
- (i) Explain how the economy will adjust to full employment in the long run.
- (ii) In the long run, what will happen to the natural rate of unemployment?

(d) Assume instead that the government of Country X decides to use fiscal policy to achieve full employment. The marginal propensity to consume is 0.8. The equilibrium real output is $400 billion and the full-employment output is $480 billion.
- (i) Calculate the minimum change and indicate the direction of change in government spending required to to close the output gap.
- (ii) Calculate the minimum change and indicate the direction of change in taxes required to to close the output gap.
- (iii) Show the effect of the change in taxes on your graph in part (a).