Exam Statistics
Possible = 25, Mean = 16.3, Median = 17.5, Standard Deviation = 4.4, Max = 22.5, Min = 8

Exam Score Thresholds
A (20), A- (18), B+ (17), B (14), B- (13), C+ (12), C (10)

Part One (Multiple Choice) Answers

Part Two (Short Essay) Answers
1. This question concerns the real rate of interest and the effect of changes in the real rate of interest on the economy. Please answer each part of the question in the space provided for that part. Answer in detail and explain yourself clearly and completely.

a. Define the real rate of interest and explain each component of the real rate.
The real rate of interest is defined as the nominal rate of interest minus the rate of inflation expected over the life of the financial contract associated with the nominal rate. For example, the real rate of interest associated with the purchase of a one year treasury bond on December 17, 2009 is the nominal rate of interest on December 17 minus the expected rate of inflation over the period December 17, 2009 to December 17, 2010.

b. What is your estimate of the real rate of interest today for a loan of one year duration? Explain your answer and cite relevant data you have learned in the course.
Students are expected to display knowledge of current financial conditions by providing a reasonable estimate and citing relevant data such as the data from the spreadsheet exercise. The nominal yield on one year Treasury bonds is currently about .18 percent or just under two tenths of a percent. It is impossible to know for sure what the inflation rate will be over the coming year. One might reasonably assume that it will be about 2 percent since that is what the Fed typically promises. In that case, the real rate of interest paid by the government to borrow is currently -1.8 percent. Other answers are possible.

c. What is the effect of a decrease in the real rate of interest on investment spending by firms that use the benefit cost principle to make spending decisions? Explain in detail and provide an example.
Here students are invited to explain why the quantity of investment is inversely related to the real rate of interest. We considered different examples in class including the problem in Frank and Bernanke where an entrepreneur is deciding how many movie screens to include in a new theater. That example shows that a higher real rate implies a higher marginal cost of each movie screen so that, given a constant marginal benefit, a higher real rate will lower the number of movie screens.

d. True or false? Take a stand and explain your position in detail. “The real rate of interest is a market price that accomplishes an important allocation in an economy.”
True is a good choice. The real rate of interest allocates a scarce flow of saving across competing investment alternatives. A complete answer will display the saving-investment market diagram that was presented, will explain the saving and investment schedules in that diagram, and will explain how the real rate of interest is determined by equality between the flow of saving and the flow of investment.
2. Does Taylor or Bernanke provide the more accurate assessment of the effects of monetary policy after 2001 and during the Great Recession? Explain why.

a. Explain what Taylor means when he claims that the end to the “Great Moderation” was caused by a “Great Deviation.”

A good answer will define the great moderation as the period that began after 1982 during which real GDP growth was far less volatile and less likely to be negative than was true for the 1960s and 1970s. Taylor argues that the Great Moderation may have ended because the Federal reserve deviated in a major way from setting the federal funds rate at levels consistent with the prescription of the “Taylor rule.” The Taylor rule says that the federal funds rate should increase when inflation is above its target rate and decrease when the output gap is positive. The rule specifies by how much the Fed should change the federal funds rate, that is, the strength of Federal Reserve response to changing economic conditions. Taylor argues that the Fed kept interest rates too low for too long after the recession ended in 2001. He suggests that low federal funds rates contributed to the inflation of the housing bubble and therefore contributed to the Great Contraction which was triggered by the popping of that bubble.

b. Explain how Bernanke argues that the Fed did not keep interest rates too low after 2001.

Bernanke makes two important arguments in response to the accusation by Taylor. First, he reminds the reader that policy makers must make policy “in the moment” without knowing how things will turn out and therefore tend to be guided by a version of the Taylor rule that includes forecasts of inflation and the output gap available at the time policy is made. Bernanke argues that when one re-computes the prescriptions of the Taylor rule using inflation and output gap forecasts, then the actual values of the federal funds rates are much close to the Taylor rule prescriptions than Taylor suggests. Put another way, Bernanke disputes the characterization of actual Federal Reserve policy as a great deviation from the Taylor rule. Second, Bernanke disputes Taylor’s claim that low interest rates were primarily responsible for the inflation of the housing bubble. He points out that scholars such as Robert Shiller have indicated that the bubble began inflating in the 1990’s. He also looks at data for many developed economies and finds in that data only a weak correlation between low interest rates and the size of the housing bubbles experienced in those economies. Bernanke argues that a better explanation of the housing bubble is given by current account deficits—funds that were earned by foreign nations who ran current account surpluses and used those funds to buy assets in the United States. Again using cross-country evidence, Bernanke argues that nations that ran larger current account deficits had bigger housing bubbles.

c. Please state your position as to whether Taylor or Bernanke provides the more accurate assessment and explain clearly what evidence leads you to favor one explanation over the other.

Here it is not necessary to choose a particular side to earn full marks. What is important is that the answer show an understanding of the arguments made by Taylor and Bernanke and explain using the underlying economic ideas correctly which argument the student finds more compelling.