Multiple Choice (28 questions, 2.5 points each, 70 points total). Clearly indicate (by circling) the ONE BEST response to each of the following multiple choice questions.

1. If companies begin to expect an improvement in the business climate, this will cause:
   a. A movement down the aggregate demand curve.
   b. A movement up the aggregate demand curve.
   c. A shift right of the aggregate demand curve.
   d. A shift left of the aggregate demand curve.

2. In the short-run, changes in GDP can be caused by:
   a. An increase in aggregate demand.
   b. A decrease in aggregate demand.
   c. A decrease in aggregate supply.
   d. All of the above.

3. An increase in aggregate demand when the economy is operating at high levels of output is likely to result in:
   a. A large increase in both output and the overall price level.
   b. An increase in output but little or no increase in the overall price level.
   c. An increase in the overall price level but little or no increase in output.
   d. Little or no increase in the overall price level.

4. If productivity increases by 4% and wages increase by 2%, then:
   a. The aggregate supply curve will shift up.
   b. The aggregate supply curve will shift down.
   c. The aggregate demand curve will shift left.
   d. The aggregate demand curve will shift right.

5. Which of the following is most likely to increase potential output?
   a. An increase in technology.
   b. An increase in real resource prices.
   c. An increase in the minimum wage rate.
   d. An increase in the expected rate of inflation.

6. If the Federal Reserve Bank adopts a monetary policy that raises U.S. interest rates, this will cause:
   a. A movement down along the aggregate demand curve.
   b. A movement up along the aggregate demand curve.
   c. A shift right of the aggregate demand curve.
   d. A shift left of the aggregate demand curve.
7. A sudden decrease in optimism about future business conditions will cause (in the short run):
   a. An increase in output and no change in the price level.
   b. An increase in both output and the price level.
   c. A reduction in both output and the price level.
   d. A decrease in output and no change in the price level.

8. Suppose that immigration reforms result in a decrease in the working-age population in the United States. In the long run, we would expect this to lead to:
   a. An increase in output and a decrease in prices.
   b. No change in output, but an increase in prices.
   c. A decrease in output and prices.
   d. A decrease in output and an increase in prices.

9. During most of the 1990’s, Japan experienced a recessionary gap. To close this gap, the Japanese government adopted a variety of expansionary fiscal policies. In the short run, these policies most likely ________ output and ________ the price level in Japan.
   a. Did not affect, increased
   b. Increased, reduced
   c. Increased, did not affect
   d. Increased, increased

10. What event shifted public opinion away from a view that favored no government intervention in the economy toward a more activist view?
    a. World War I.
    b. The Great Depression.
    c. World War II.
    d. The Vietnam War and the social turbulence of the 1960s.

11. A decrease in income taxes at a given price level leads to:
    a. No change in aggregate demand.
    b. A decrease in aggregate demand.
    c. An increase in aggregate demand.
    d. A shift down in aggregate supply.

12. An unexpected increase in the costs of production, with no change in monetary or fiscal policy would (in the short run):
    a. Shift the aggregate supply curve down, increase output, and reduce the price level.
    b. Shift the aggregate supply curve up, lower output, and raise the price level.
    c. Shift the aggregate demand curve left, increase output, and cause no change in the price level.
    d. Shift the aggregate demand curve to the right, lower output, and cause no change in the price level.
13. Suppose the economy is in a short-run equilibrium producing output below potential. Over the long run (and without any policy intervention from the government), output will return to potential when:
   a. Aggregate demand increases.
   b. Aggregate demand decreases.
   c. Aggregate supply shifts down.
   d. Aggregate supply shifts up.

14. Which of the following helps to explain the horizontal shape of the aggregate supply curve?
   a. The interest-rate effect.
   b. The exchange-rate effect.
   c. The wealth effect.
   d. The fact that prices don’t change in response to changes in aggregate demand.

15. Suppose that there is a widespread increase in the wealth of U.S. citizens. In the long run, we would expect this to lead to:
   a. An increase in output and a decrease in prices.
   b. No change in output, but an increase in prices.
   c. A decrease in output and prices.
   d. A decrease in output and an increase in prices.

16. Suppose the economy is experiencing an inflationary gap. In the long run:
   a. Production costs will increase, which will decrease output back to potential.
   b. Production costs will decrease, which will increase output even further.
   c. Neither the price level nor the level of output will change.
   d. Potential output will increase.

17. Which of the following is true?
   a. Keynes believed the economy was always at potential income.
   b. Keynes believed the economy was always moving toward potential income.
   c. Keynes believed the economy was always moving away from potential income.
   d. Keynes believed that the economy was subject to forces that made it difficult to reach potential income quickly.

18. Which of the following would shift the nation’s aggregate supply curve up?
   a. An increase in wages.
   b. An increase in productivity.
   c. A decrease in consumer spending.
   d. A decrease in net exports.
19. Suppose the European economy goes into a recession. The effect on the U.S. economy in the short-run is:
   a. Aggregate demand shifts left, the price level falls, and real output falls.
   b. Aggregate demand shifts left, the price level does not change, and real output falls.
   c. Aggregate demand shifts right, the price level rises, and real output increases.
   d. Aggregate demand shifts right, the price level does not change, and real output increases.

20. An economy’s resources:
   a. Can never be over-utilized.
   b. Can be over-utilized, but only in the short run.
   c. Can be over-utilized, but only in the long run.
   d. Can be over-utilized in both the short run and the long run.

21. Suppose that output currently is less than potential output. As the economy adjusts to a new long-run equilibrium position, there will be:
   a. A decrease in the price level.
   b. Rising nominal interest rates.
   c. Increasing resource prices.
   d. Decreasing taxes.

22. The vertical potential output curve predicts:
   a. Fiscal policy but not monetary policy has an effect on aggregate output in the long run.
   b. Monetary policy but not fiscal policy has an effect on aggregate output in the long run.
   c. Contractionary policies but not expansionary policies have an effect on aggregate output in the long run.
   d. Neither monetary nor fiscal policy has any effect on aggregate output in the long run.

23. In the late 1990s, both US fiscal policy and US monetary policy were largely contractionary. In the long run, this combination will:
   a. Increase output above its potential.
   b. Reduce output beneath its potential.
   c. Have an indeterminate effect on output.
   d. Not cause output to deviate from its potential.

24. If the price level falls, the interest rate effect will cause:
   a. Investment to increase, shifting aggregate demand to the right.
   b. Investment to decrease, shifting aggregate demand to the left.
   c. Investment to increase, causing a movement down along the aggregate demand curve.
   d. Investment to decrease, causing a movement up along the aggregate demand curve.

25. Suppose there is a widespread decrease in productivity. In the short run this will cause:
   a. An increase in output and no change in the price level.
   b. An increase in output and a decrease in the price level.
   c. A decrease in output and an increase in the price level.
   d. A decrease in output and no change in the price level.
26. Suppose the U.S. economy is initially producing at potential output, and then the European economy comes out of a recession. The result is that U.S. aggregate demand will ________ in the short run and U.S. aggregate supply will ________ in the long run.
   a. Increase, shift up
   b. Increase, not change
   c. Decrease, shift down
   d. Decrease, not change

27. If an economy is in the Keynesian range, it is most likely:
   a. At potential output.
   b. In an inflationary gap.
   c. In a recessionary gap.
   d. In a long-run equilibrium.

28. Last year Congress voted to decrease income tax rates. The effect on the U.S. economy in the long run is:
   a. Aggregate demand shifts right, the price level increases, and real output increases.
   b. Aggregate demand shifts right, the price level does not change, and real output increases.
   c. Aggregate demand shifts right, the price level increases, and real output does not change.
   d. Aggregate demand shifts left, the price level falls, and real output decreases.
Essay (30 points total). A full credit answer can fit in the space provided under each question. If you do need more space, please use the back of the page and make it clear that your answer is "continued on back of page."

1. (19 points total) Suppose that consumers expect higher inflation in the near future.

   (a) (9 points) Using a carefully labeled graph (and some words explaining the graph), show the effect this expected inflation will have on equilibrium prices and output in the short run.

   (b) (10 points) Using another carefully labeled graph (and some words to explain it), show the effect this expected inflation will have on equilibrium prices and output in the long run. Define “self-fulfilling expectations” and (in about one sentence) explain how your answer relates to this concept.
2. (11 points total) Suppose that potential output is $10 trillion, and equilibrium output is $7 trillion.

(a) (9 points) Using this information, draw a carefully labeled graph showing this situation. Your graph should show the AD, AS, and potential output curves (and not any other curves). Be sure to label the current equilibrium (using numbers on the graph to indicate the equilibrium as well as potential output), and any inflationary or recessionary gap that exists. (You must specifically say whether the current situation is an inflationary or recessionary gap, as well as showing this gap on your graph).

(b) (2 points) Give a specific example of a policy that would eliminate the gap shown above. You must specifically state what policy action the government will take (and whether it is a decrease or an increase). No graph is required.

Extra Credit (2 points) Name the two people who won the Nobel Prize in Economics this year.