Total points: 100 points. Calculator is allowed.
I. Multiple-choice questions: Please choose only one correct answer for each question.
Each question counts 3 points.

1. The price of a new textbook increased from $60 to $75 in one year, while the price of a used textbook increased by 25 percent. What happened to the relative price of a used textbook?
   A) It increased by 25 percent.
   B) It increased by 10 percent.
   C) It remained constant.
   D) It can't be determined without knowing the nominal price of the used textbook in at least one of the years.

2. In a price system, if there is a shortage of good X, then
   A) the relative price of good X will rise toward the equilibrium level.
   B) the relative price of good X will fall toward the equilibrium level.
   C) a government price floor should be imposed so that the market can work more effectively.
   D) a government price ceiling should be imposed so that the market can work more effectively.

3. Which of the following is an example of the free-rider problem?
   A) A neighbor who refuses to help pay for a street light that is intended to help reduce crime.
   B) A student who refuses to buy a college catalog.
   C) A law enforcement officer who receives a uniform from the police department.
   D) A fast food employee who is provided food at work.

4. Unemployment implies that society is
   A) on the wrong point on its production possibilities curve.
   B) inside its production possibilities curve.
   C) outside its production possibilities curve.
   D) on an endpoint of the production possibilities curve.
5. If a person is fired for poor performance, this person is considered
   A) seasonally unemployed.
   B) frictionally unemployed.
   C) structurally unemployed.
   D) a discouraged worker.

6. Which of the following is NOT included in the calculation of GDP?
   A) The purchase of a raincoat by Mr. Z
   B) Mrs. T's use of a lawyer
   C) Mr. J's purchase of a share of General Motors stock
   D) All of these would be included

7. The rate of economic growth will be faster, the greater
   A) the rate of growth of the money supply.
   B) the rate of saving.
   C) the rate of growth of the population.
   D) consumption spending is.

8. Terrorist attacks such as the World Trade Center event, slow long-run aggregate
   supply by
   A) diverting resources from goods and services production to security
      concerns.
   B) reducing net exports.
   C) reducing direct foreign investment.
   D) increasing wages within the U.S.

9. The Keynesian short run aggregate supply curve
   A) shows that aggregate output will increase only if the price level increases.
   B) assumes a full-employment level of output.
   C) is horizontal.
   D) does not reflect any changes in nominal aggregate output or income.

10. Suppose when real disposable income is $5000, planned real consumption is
    $4000. When real disposable income increases to $6000, planned real saving
    increases by $500. The new planned real consumption expenditures is
    A) $5,000.
    B) $4,500.
    C) $6,000.
    D) $3,500.
11. Automatic stabilizers typically increase during:
   A) expansionary periods.
   B) recessions.
   C) both recessions and expansions.
   D) wartime only.

12. Liquidity refers to
   A) the ease with which an asset can be acquired or disposed of without
      incurring high transaction costs.
   B) the expected return from an asset.
   C) the amount of indebtedness held against an asset.
   D) the net worth of the individual in question.

13. The inflation rate has been 3 percent per year for several years, and the
    unemployment rate has been stable at 5 percent. Unanticipated changes in
    government policy cause the inflation rate to increase to 6 percent. In the short
    run, we would expect the unemployment rate to
   A) remain constant.
   B) increase to 10 percent.
   C) increase, but the exact amount cannot be known for sure.
   D) decrease.

14. A certain athlete loves donuts. He receives 100 units of utility for the first donut,
    an additional 80 for the second, an additional 60 for the third, another 40 for the
    fourth, and another 20 for the fifth. The marginal utility of the fourth donut is
    _____ and the total utility from consuming four donuts is _____.
   A) 40; 40
   B) 40; 280
   C) 140; 280
   D) 280; 100

15. A firm can sell 1,000 units of a good at $10.00, but quantity demanded falls to
    zero if it raises price at all. The firm faces a demand curve that is
   A) horizontal and is perfectly inelastic.
   B) horizontal and is perfectly elastic.
   C) vertical and is perfectly elastic.
   D) downward sloping from higher prices down to $10.00 and then horizontal.
16. If the marginal product curve is increasing from workers 1-89 and then decreases steadily, crossing the horizontal axis at 190 workers, we know that
   A) the total output curve increases from workers 1-89, decreases from workers 90-189, and becomes 0 at the 190th worker.
   B) the total output curve is increasing at an increasing rate from workers 1-89, then increases at a decreasing rate until the 190th worker, after which it decreases.
   C) the total output curve is increasing throughout, although at an increasing rate for the first 190 workers and at a decreasing rate after the 190th worker.
   D) diminishing marginal returns set in with the 190th worker.

17. A perfectly elastic demand function
   A) shows that a consumer is willing to pay any amount for the product.
   B) is characteristic of an individual firm operating in a perfectly competitive market.
   C) shows that the individual firm can increase sales by lowering the price of output.
   D) has a marginal revenue that is always decreasing.

18. Compared to competitive firms, the demand curve for a monopolist will be
   A) as elastic.
   B) more elastic.
   C) less elastic.
   D) perfectly elastic.

19. The large number of firms in a monopolistic competitive industry means
   A) it is difficult for collusion to take place.
   B) it is likely collusion will take place.
   C) there will be economic profits in the long run.
   D) firms act independently of each other.

20. Suppose a firm can charge a relatively low price to try to compete actively with its rivals, or a relatively high, collusive price. If its strategy is to charge the low price regardless of the other firms' decisions, this low-price is the firm's
   A) dependent strategy.
   B) independent strategy.
   C) dominant strategy.
   D) kinked strategy.
II. Short essay questions: each question counts 10 points.

1. Suppose that a market is in equilibrium at a price of $10 and a quantity of 5000 units a day. Several months later, the market is in a new equilibrium at a price of $5 and a quantity of 5000 units a day. What happened in the market?

2. What is the business cycle? How "cyclical" is it? What causes the business cycle?

3. How can the equilibrium level of real GDP increase without the price level changing?

4. Show a long-run equilibrium of a monopolistic competitor. How is it different from a monopolist? How is it different from a perfect competitor?