Directions: Put all answers to the quiz on the attached answer sheet. No credit will be given for answers placed elsewhere.

1. The largest percentage of businesses in the U.S. are:
   a. proprietorships.
   b. partnerships.
   c. corporations.
   d. none of the above.

2. The type of business that accounts for the largest percentage of sales in the U.S. is:
   a. the proprietorship.
   b. the partnership.
   c. the corporation.
   d. none of the above.

3. A disadvantage of the proprietorship is that
   a. unlike corporations, proprietorships have unlimited liability.
   b. proprietorships are taxed at a higher rate than corporations.
   c. proprietorships are more costly to establish than a corporation.
   d. all of the above.

4. If you want to have $50,000 in the bank in 20 years, how much would you have to deposit today if the bank pays you a 6% interest rate? (Round your answer to the nearest dollar.)

5. If you deposit $10,000 in the bank today, how much will you have in your account in 5 years? Assume all interest is allowed to compound and the interest rate is 6%. Round your answer to the nearest dollar.

6. Suppose that you could purchase an asset for $25,000 today. It will pay you income of $15,000 per year for 2 years but the first payment won’t be received until 5 years from today. The second (and last) payment will be received 10 years from today. What is the NPV of investing in this asset if the interest rate is 6%? Round your answer to the nearest dollar.

7. Suppose there is a one year bond with a coupon rate of 9% and a maturity value of $1000. What is the yield on the bond if you pay $1010 for it today? Round your answer to the nearest one-tenth of one percent (e.g. 11.2%).
8. Economic profits are positive if and only if:
a. accounting profits exceed implicit costs.
b. accounting profits exceed explicit costs.
c. total revenue exceeds implicit costs.
d. total revenue exceeds explicit costs.

9. The fact that a manager of a business may have different objectives than the owner of the business is an example of the ____________ problem.

10. According to the law of diminishing marginal returns,
a. if capital is held constant, the marginal product of labor will eventually fall as labor increases.
b. if capital is held constant, the marginal product of labor will eventually increase as labor increases.
c. if capital is increased proportionately with labor, the marginal product of labor will eventually increase as labor increases.
d. if capital is increased proportionately with labor, the marginal product of labor will eventually decrease as labor increases.

To answer the next 7 questions, refer to the information provided below for a company that produces lawn sheds. The customer buys the materials so the costs listed below are strictly for the construction of the sheds.

Wage rate=$2000 per month; Fixed costs=$1000 per month.

<table>
<thead>
<tr>
<th>L: units of labor</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>TP: total product (lawn sheds produced per month)</td>
<td>0</td>
<td>20</td>
<td>50</td>
<td>70</td>
<td>85</td>
<td>95</td>
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11. What is the marginal product of the fourth unit of labor?

12. What is the average product of labor when four units of labor are employed? (round to nearest one-tenth.)

13. What is total cost when 85 units of output are produced monthly?

14. What is average total cost when 85 units of output are produced?

15. What is average variable cost when 85 units of output are produced?

16. What is the marginal cost (per unit) of increasing production from 85 to 95?

17. If the company can get $100 for each lawn shed it builds, its profits would (increase, decrease) by $_____ if its increases production of sheds from 85 to 95.
To answer the next 3 questions, suppose that a firm is in a competitive industry and producing 10,000 apples per year. At this level of output it is faced with the following:

- ATC=$.10
- AVC=$.08
- MC=$.06

18. If the firm can sell apples for $.09 each, the firm
   a. can increase its profits by producing more apples.
   b. can increase its profits by producing less apples.
   c. should shut down in the short run.

19. If the firm increases apple production beyond 10,000,
   a. ATC and AVC will rise, but AFC will fall.
   b. ATC will rise, but AVC and AFC will fall.
   c. ATC, AVC, and AFC will rise.
   d. ATC, AVC and AFC will fall.

20. With production at 10,000 this firm currently has an economic (profit, loss) of $______.
To answer the next 7 questions, refer to the cost and supply/demand curves for the wheat industry. Assume that all firms have the identical cost structure and that all firms choose output to maximize profits. BE SURE TO NOTE THAT FIRM OUTPUT IS MEASURED IN THOUSANDS; INDUSTRY OUTPUT IS MEASURED IN MILLIONS.

21. At the current equilibrium price, how many pounds of wheat will the typical firm produce?

22. At the current equilibrium price, what are the typical firm's profits? Provide a number and indicate positive or negative.

23. At the current equilibrium, how many firms are there in the industry?

24. What is the lowest price the typical firm will produce cotton for in the short run?

25. Assuming this is a constant cost industry (i.e. there are no external economies or diseconomies), what is the long run equilibrium price?

26. Assuming this a constant cost industry, how many firms will there be in the industry in the long run?

27. Assuming this is a constant cost industry, how much will the typical firm produce at the long run equilibrium price?

28. If this is a decreasing cost industry, where will the long run equilibrium price be? (Provide a range).
29. Scale economies in the production of inputs are likely to lead to:
   a. external economies (i.e. a decreasing cost industry).
   b. external diseconomies (i.e. an increasing cost industry).
   c. diminishing marginal returns.
   d. none of the above.

30. If there is an increasing cost industry (i.e. external diseconomies), negative economic profits in the industry will eventually cause:
   a. firm exits and higher ATC for those that remain in the industry.
   b. firm exits and lower ATC for those that remain in the industry.
   c. firm entry and higher ATC for all the firms in the industry.
   d. firm entry and lower ATC for all the firms in the industry.

Answer sheet, Quiz 2

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