This document contains example multiple choice questions on material covered in weeks 11-15.
A monopolist faces the demand curve illustrated below. Draw the marginal revenue (MR) curve on the graph. Suppose the marginal cost (MC) and average variable cost (AVC) both equal 6 for all quantity levels, $M C=A V C=6$. Draw the $M C$ curve in the graph.


1. Marginal revenue equals zero at what quantity level?
a) $Q=0$
b) $Q=6$
c) $Q=9$
d) $Q=12$
e) $Q=18$
2. At the quantity where Marginal Revenue equals zero
a) Revenue is maximized
b) The elasticity of demand is greater than one
c) The elasticity of demand is less than one
d) Marginal revenue equals average revenue
3. Assume the fixed cost equals zero. The profit maximizing monopoly price equals
a) 6
b) 8
c) 9
d) 10
e) 11
4. Again, assuming the fixed cost equals zero, the monopoly profit equals equals
a) 10
b) 12
c) 14
d) 16
e) 18
5. Suppose the fixed cost can be avoided if the firm shuts down and produces zero. At what fixed cost is the firm indifferent between producing and shutting down?
a) 10
b) 12
c) 14
d) 16
e) 18
6. Again, suppose the fixed cost equals zero. What is the monopoly profit if the firm can perfectly price discriminate?
a) 18
b) 20
c) 28
d) 36
e) 48
7. Some prescription drugs sell for more in the United States than they do in other countries. Which of the following statements about this issue is most likely to be true?
a) Drug companies are engaging in price discrimination, and this practice certainly reduces global social welfare.
b) Global social welfare could be improved if the price in the United States were reduced to the price charged in other countries.
c) Global social welfare could be improved if the price in the other countries were increased to the price charged in the United States.
d) Drug companies are engaging in price discrimination, but this might improve global social welfare if it gives more people access to the drugs.


Jim and Pam are playing the following game. Jim has two cards, "Up" and "Down." Pam has two cards, "Left" and "Right." The players simultaneously pick one card to show the other. The payoff each player gets depends upon the cards picked as shown in the table above.
8. If Pam believes Jim is going to play "Up," to maximize her payoff Pam should play
a) Left
b) Right
c) Left and Right give her the same payoff
d) Not enough information
9. For Jim, it is a dominant strategy for him to play
a) Up
b) Down
c) Up or Down give same the payoff
d) Not enough information
10. The Nash equilibrium of this game is
a) Jim plays "Up," Pam plays "Left."
b) Jim plays "Down," Pam plays "Left."
c) Jim plays "Up," Pam plays "Right."
d) Jim plays "Down," Pam plays "Right."
e) A Nash equilibrium does not exist
11. In markets characterized by oligopoly
a) the oligopolists earn the highest profit when they cooperate and behave like a monopolist.
b) collusive agreements will always prevail.
c) collective profits are always lower with cartel arrangements than they are without cartel arrangements.
d) pursuit of self-interest by profit-maximizing firms always maximizes collective profits in the market.

Big Pharma Corp. is considering developing a new drug paretoflux. The operating profit generated by the drug depends whether the patent lasts one or two years. Suppose that Big Pharma can not price discriminate. When the drug is under patent, it sets a uniform monopoly price above marginal cost. With no patent, price equals marginal cost. The resulting operating profits are given in the following table.

|  | Patent Lasts <br> One Year | Patent Lasts <br> Two Years |
| :--- | :---: | :---: |
| Operating Profit (year 1) | 500 | 500 |
| Operating Profit (year 2) | 0 | 500 |
|  |  |  |
| Operating Profit over two years | 500 | 1000 |

12. The patent length (in years) that maximizes total surplus equals $\qquad$ when the fixed cost to develop the drug is 250 and $\qquad$ when the fixed cost is 750 . (Fill in the blanks.)
a) 0,0
b) 1,1
c) 2,2
d) 1,2
e) not enough information
13. This example illustrates that
a) When the fixed cost is low, an increase in the patent length can lower total surplus because the dead weight loss of monopoly is incurred over a longer time period.
b) The patent length should be set to zero because patents can be used to block subsequent innovation
c) The patent length should be zero because new drugs will get invented even without patent protection.
d) If we pick a patent length to maximize consumer surplus we get a different answer than if we pick a patent length to maximize the total of consumer plus producer surplus.
14. Compared to the United States, India provides weak intellectual property protection for pharmaceutical products. The economic incentives for India to pursue this policy include:
A. India can free ride on innovations that take place in rich countries.
B. By having weak patent protection, India is developing an export business of selling generic equivalents to other countries with weak patent protection.
a) A only
b) B only
c) $A$ and $B$
d) neither are correct
15. The fact that big banks like Citigroup are considered "To Big to Fail," (or TBTF)
a) creates a problem of adverse selection. Bank regulators solve this problem by signaling their hidden information.
b) creates a problem of adverse selection. Bank regulators solve this problem by screening the banks to separate healthy banks from unhealthy banks.
c) creates a problem of moral hazard. Banks take hidden actions that determine the riskiness of their loan portfolios. Because of the free insurance the big banks get from TBTF, the big banks will select loan portfolios that are excessively risky.
d) creates a lemons problem. In the long run equilibrium with TBTF, only the "lemon" banks will survive.
16. How does a competitive market compare to a monopoly that engages in perfect price discrimination?
a) In both cases, total social welfare is the same.
b) Total social welfare is higher in the competitive market than with the perfectly price discriminating monopoly.
c) In both cases, some potentially mutually beneficial trades do not occur.
d) Consumer surplus is the same in both cases.
17. Which of the following statements is correct?
a) The value of the marginal product curve is the labor demand curve for competitive, profitmaximizing firms.
b) A competitive, profit-maximizing firm hires workers up to the point where the value of the marginal product of labor equals the wage.
c) By hiring labor up to the point where the value of the marginal product of labor equals the wage, the firm is producing where price equals marginal cost.
d) All of the above are correct.
18. Suppose you are covered under health insurance or belong to a Health Maintenance Organization (HMO), and you are insured against all or most of the costs of visits to the doctor. As a result you are likely to make greater use of medical services of all kinds. This tendency of people with insurance to change their behavior in a way that leads to more claims against the insurance company is called
a) adverse selection.
b) moral hazard.
c) screening
d) signaling.

19. Suppose the marginal product of labor for a firm is given by the figure above. Suppose there is perfect competition in the output market and the labor market and that the output price is $\$ 3$ and the wage is $\$ 15$ per hour. In this case, the demand for labor by the firm equals $\qquad$ hours. (Fill in the blanks.)
a) 2
b) 3
c) 4
d) 6
e) 7
20. Suppose the wage increases to $\$ 60$ an hour. Compared to when the wage is $\$ 15$ an hour, the firm's total spending on labor (the wage times the quantity of labor) will
a) increase.
b) decrease.
c) there is not enough information to determine the direction of the effect.
