Test \#4 - Econ 3144
Fall 2002 - Dr. Rupp
40 Multiple Choice Questions
The following formula maybe useful: $\mathrm{MR}=\mathrm{P}\left(1-1 /\left|\mathrm{E}_{\mathrm{p}}\right|\right)$
Use the following information to answer the next 10 questions: $\mathrm{P}=80-2 \mathrm{Q}, \mathrm{TC}=10+20 \mathrm{Q}, \mathrm{MC}=20$

1. What is the equation for the monopolists' marginal revenue curve?
A. $M R=80-2 \mathrm{Q}$
B. $\mathrm{MR}=80-\mathrm{Q}$
C. $\mathrm{MR}=10+40 \mathrm{Q}$
D. $M R=20$
E. $\mathrm{MR}=80-4 \mathrm{Q}$
2. How much are fixed cost for this monopolist?
A. 80
B. 300
C. 20
D. 10
E. 2
3. What is the profit maximizing output for this monopolist?
A. 10
B. 15
C. 20
D. 25
E. 30
4. What is the profit maximizing price for this monopolist?
A. $\$ 20$
B. $\$ 30$
C. $\$ 40$
D. $\$ 50$
E. $\$ 60$
5. Based on your answers to (3) and (4) find the profit (or loss) for this monopolist.
A. $-\$ 10$
B. $\$ 240$
C. $\$ 390$
D. $\$ 440$
E. $\$ 750$
6. Calculate the consumer surplus.
A. $\$ 100$
B. $\$ 225$
C. $\$ 400$
D. $\$ 625$
E. $\$ 900$
7. Calculate the producer surplus.
A. \$0
B. $\$ 225$
C. $\$ 400$
D. $\$ 430$
E. $\$ 450$
8. Calculate the deadweight loss.
A. $\$ 0$
B. $\$ 25$
C. $\$ 100$
D. $\$ 225$
E. $\$ 400$
9. Calculate the total surplus.
A. $\$ 450$
B. $\$ 675$
C. $\$ 800$
D. $\$ 875$
E. $\$ 900$
10. In the long-run, is this monopolist open or closed?
A. Open
B. Closed
11. What is the biggest threat to a monopolist?
A. Taxes
B. Tariffs
C. Entry
D. Sherman-Antitrust Act
E. Clayton-Antitrust Act
12. Goodyear Tire and Rubber Company is currently running a special, buy 3 tires and get the $4^{\text {th }}$ free. This is an example of:
A. Hurdle Model of Price Discrimination
B. $1^{\text {st }}$ Degree Price Discrimination
C. $2^{\text {nd }}$ Degree Price Discrimination
D. Perfect Price Discrimination
E. Imperfect Price Discrimination
13. Papa John's recently mailed its customers in Winterville a coupon for $\$ 1$ off any large pizza. Coupons are an example of:
A. Hurdle Model of Price Discrimination
B. $1^{\text {st }}$ Degree Price Discrimination
C. $2^{\text {nd }}$ Degree Price Discrimination
D. Perfect Price Discrimination
E. Imperfect Price Discrimination
14. True or False: Price Discrimination is illegal in the United States.
A. True
B. False
15. Which of the following made it illegal for U.S. companies to join cartels?
A. Clayton Anti-trust Act
B. $19^{\text {th }}$ Amendment
C. J.P. Morgan Act
D. $29^{\text {th }}$ Amendment
E. Sherman Anti-trust Act
16. True or False: The Carmike12 movie theater in Greenville, NC price discriminates.
A. True
B. False
17. An example of price differentiation is:
A. ECU charges higher tuition for out-of-state students
B. A bar charges a cover charge after 10 pm
C. Food Lion sells a 12-pack of Bud for $\$ 10.99$ (12 ounce cans) and $\$ 11.49$ (12 ounce bottles).
D. Scott's Cleaners offers a $10 \%$ reduction for ECU students.
E. Mike's Deli mails everyone in Greenville a $\$ 1$ off coupon with purchase of a sandwich.
18. A monopolist has a marginal cost of $\$ 2$. If the price elasticity of demand equals -3 , find the profit maximizing price.
A. \$2
B. $\$ 2.50$
C. $\$ 2.67$
D. $\$ 3$
E. \$4

## Exhibit 1. Monopolist


19. Exhibit 1 indicates that a monopolist maximizes profits at output equal to:
A. 0 .
B. 6 .
C. 8.
D. 9 .
E. 10.
20. The monopoly price that maximizes profits in Exhibit 1 is:
A. \$4.
B. \$6.
C. \$7.
D. \$8.
E. \$10.

Use this table to answer questions 21-24:

| Q | ATC | AVC | MC |
| :---: | :---: | :---: | :---: |
| 1 | 44 | 4 | 4 |
| 2 | 28 | 8 | 12 |
| 4 | 26 | 16 | 32 |
| 6 | 31 | 24 | 48 |
| 8 | 37 | 32 | 64 |

21. At a price of $\$ 12$, how many units of output will this firm produce in the short run?
A) 0 (since closed in short run)
B) 2
C) 4
D) 6
E) 8
22. At a price of $\$ 12$, how many units of output will this firm produce in the long run?
A) 0 (since closed in long run)
B) 2
C) 4
D) 6
E) 8
23. What is the profit (or loss) at price of $\$ 12$ in the short run?
A) $\$ 0$
B) $\$ 24$
C) $-\$ 24$
D) $-\$ 56$
E) $-\$ 32$
24. How much are fixed cost?
A) $\$ 0$
B) $\$ 12$
C) $\$ 16$
D) $\$ 24$
E) $\$ 40$

Use the following information to answer questions 25-27: a perfectly competitive firm has the cost curves: $\mathrm{MC}=2+4 \mathrm{Q}$ and $\mathrm{AVC}=2+2 \mathrm{Q}$.
25. Should this firm be open or closed in the short-run if the market price is $\$ 22$.
A) Open
B) Closed
26. How much quantity (if any) should the firm produce?
A) 0 (since closed)
B) 2
C) 4
D) 5
E) 10
27. How much is producer surplus?
A) $\$ 0$
B) $\$ 60$
C) $\$ 32$
D) $\$ 48$
E) $\$ 50$

Use the following information to answer questions 28-32: the demand in the perfectly competitive cotton industry is: $\mathrm{P}=100-5 \mathrm{Q}$, the $\mathrm{MC}=10+\mathrm{Q}$.
28. Find the profit maximizing output in the perfectly competitive cotton industry.
A) 5
B) 8
C) 10
D) 15
E) 20
29. Find the profit maximizing price in the perfectly competitive cotton industry.
A) $\$ 20$
B) $\$ 75$
C) $\$ 50$
D) $\$ 60$
E) $\$ 25$
30. Find the consumer surplus in the perfectly competitive cotton industry.
A) $\$ 562.50$
B) $\$ 160$
C) $\$ 62.50$
D) $\$ 1000$
E) $\$ 250$
31. Find the producer surplus in the perfectly competitive cotton industry.
A) $\$ 0$
B) $\$ 100$
C) $\$ 112.50$
D) $\$ 162.50$
E) $\$ 200$
32. Find the deadweight loss in the perfectly competitive cotton industry.
A) $\$ 0$
B) $\$ 62.50$
C) $\$ 160$
D) $\$ 562.50$
E) $\$ 162.50$
33. According to the rule of allocative efficiency, society should produce where:
A) marginal revenue = price
B) marginal cost $=$ average variable cost
C) marginal cost = average total cost
D) marginal benefit = price
E) marginal benefit = marginal cost
34. In the short-run, US Airways should shutdown if airline ticket prices are less than:
A) Average fixed cost
B) Marginal cost
C) Implicit cost
D) Average variable cost
E) Average total cost
35. In the long run, US Airways should shutdown if airline ticket prices are less than:
A) Average fixed cost
B) Marginal cost
C) Implicit cost
D) Average variable cost
E) Average total cost
36. Which of the following curves is considered the supply curve for a perfectly competitive firm:
A) Marginal revenue
B) Average variable cost
C) Average total cost
D) Marginal cost
E) Average fixed cost
37. If the supply curve of firm one is: $\mathrm{P}=5+\mathrm{Q}_{1}$ and the supply curve of firm two is: $\mathrm{P}=5+\mathrm{Q}_{2}$, then the market supply curve is:
A) $P=5+Q$
B) $\mathrm{P}=10+2 \mathrm{Q}$
C) $\mathrm{P}=5+1 / 2 \mathrm{Q}$
D) $P=10+1 / 2 Q$
E) $P=5+2 Q$
38. A firm should close in the short-run if it cannot pay for all of its:
A) Fixed costs
B) Variable costs
C) Total costs
39. In the hypothetical widget industry, all else equal, which market structure will produce more widgets?
A) Perfect competition
B) Monopoly
40. In the long run, what prevents firms in perfect competition from making economic profits?
A) Taxes
B) Economies of scale
C) Entry
D) Diseconomies of scale
E) Law of diminishing returns

Current events, extra credit:
41. Who won the 2002 North Carolina Senate Race to replace Jesse Helms?
A) Erskine Bowles
B) Elizabeth Dole

