Question 1

4 pts

Assume the payoff matrix for a game is as follows.

		Firm B	
	Strategy	X	Y
Firm A	1	8, 8	32, 2
	2	2, 32	12, 12

What is the maximum interest rate at which collusion could occur between these firms with a trigger strategy if the game is played an infinite number of times?

- ○ 35%
- ◉ 20%
- ○ 60%
- ○ 50%

1 Answer:

Question 3

4 pts

The inverse market demand in a homogeneous-product Cournot duopoly is $P = 64 - 2(Q_1 + Q_2)$ and costs are $C_1(Q_1) = 20Q_1$ and $C_2(Q_2) = 24Q_2$. What is the equilibrium output for firm 2?

- ○ 8
- ○ 4
- ○ 16
- ○ 6

Question 4

4 pts

A single firm produces all of the output in a contestable market. The market demand function is $Q = 920 - P/8$, and the firm's cost function is $TC = 400Q$. What is the firm's output?

- ○ 870
- ○ 435
- ○ 1050
- ○ 560

Question 5

4 pts

Which of the following statements is correct regarding the Sweezy model?

- ○ The steeper inverse demand curve is the relevant curve when competitors do not respond to price changes.
- ○ Competitors match price decreases.
- ○ The firm faces more elastic demand if it lowers its price than if it raises its price.

Question 2

4 pts

Use the payoff matrix to answer the question below.

		Firm B	
	Strategy	X	Y
Firm A	1	19, 12	7, 9
	2	8, 7	14, 11

Where does the game end if each player follows its secure strategy?

- ○ 2, Y
- ○ 1, Y
- ◉ 1, X
- ○ 2, X

2 Answer: **1, X**

Question 3

4 pts

The inverse market demand in a homogeneous-product Cournot duopoly is $P = 72 - (Q_1 + Q_2)$ and costs are $C_1(Q_1) = 20Q_1$ and $C_2(Q_2) = 28Q_2$. What is the equilibrium output for firm 2?

- ○ 12
- ○ 14
- ○ 18
- ○ 24

3 Answer:

Question 4

4 pts

A single firm produces all of the output in a contestable market. The market demand function is $Q = 660 - P/4$, and the firm's cost function is $TC = 240Q$. What is the firm's output?

- ○ 450
- ○ 600
- ○ 900
- ○ 300

4 Answer **600**

Question 5

4 pts

Which of the following statements is not correct regarding the Sweezy model?

- ○ The flatter inverse demand curve is the relevant curve when competitors do not respond to price changes.
- ○ The marginal cost of the firm can change within a range without affecting the profit maximizing output.
- ○ The sticky price is the price that corresponds to the firm's marginal cost.
- ○ Competitors do not match price increases.
- ○ The firm faces less elastic demand if it lowers its price than if it raises its price.

5 Answer - 5 - do noy match increases

Question 6 — 4 pts

Two firms compete in a Stackelberg oligopoly. The inverse demand function is P = 14,000 – 4Q. The marginal cost of the leader is $2,600 and for the follower is $3,200. What is the total output for this industry?

- ○ 2,500
- ○ 1,250
- ○ 2,100
- ○ 1,700

6 Answer

Question 7 — 4 pts

Assume the payoff matrix for a game is as follows.

		Firm B	
	Strategy	X	Y
Firm A	1	62, 61	45, 65
	2	52, 41	55, 46

Assume a one-shot, simultaneous game. Where will the game end?

- ○ 2, Y
- ○ 1, X
- ○ The end game cannot be determined.
- ○ 2, X
- ○ 1, Y

7 Answer: Cannot be determined

Question 8

4 pts

A monopoly's demand and cost functions are as follows: Q = 640 – 8P; TC = 20Q. What is the firm's profit if it uses two-part pricing?

- $14,400
- None of the answers listed is correct.
- $12,800
- $16,800
- $18,500

8 Answer **14,400**

Question 9

4 pts

In an infinitely repeating game with a trigger strategy, the agreement is less likely to be kept if the interest rate _______. In a finite repeating game with an indefinite end, collusion is more likely when the probability of the game ending _______.

- This question makes no sense because in at least one of these situations indicated in the prompt agreements can never be kept.
- decreases, decreases
- increases, decreases
- increases, increases
- decreases, increases

9 Answer **decrease, increase**

Question 10

4 pts

Eight firms produce in a homogeneous-product Cournot industry. The market elasticity of demand for the product is –1.5. If each firm's marginal cost of production is $176, then what is the profit-maximizing equilibrium price?

- None of the answers listed is correct.
- $244
- $212
- $192

10 Answer

Question 11

4 pts

Two types of consumers buy laptops and accessories. Consumers of type X are willing to pay $825 for a laptop and $85 for accessories. Consumers of type Y are willing to pay $950 for a laptop and $70 for accessories. The firm selling the laptops and accessories faces no competition and has a marginal cost of zero. How much should the firm charge for a bundle that includes a laptop and accessories?

- $1,035
- $1,020
- $895
- $910

11 Answer

Question 12 — 4 pts

Assume the payoff matrix for a game is as follows.

		Firm B	
	Strategy	X	Y
Firm A	1	98, 104	110, 117
	2	89, 96	105, 94

Which of the following lists all of the Nash equilibrium outcomes?

- ○ 2, Y
- ○ 1, X and 2, Y
- ○ 1, Y
- ○ 2, X and 1, Y
- ○ 1, X

12 Answer = 1,Y

Question 13 — 4 pts

A monopoly has decided to use first-degree price discrimination. It sells a good that can be sold in infinitesimally small units. Its inverse demand function is $P = 1500 - 4Q$. Its marginal cost and average total cost are constant at $300. The firm sells a total of 300 units. What will be the monopoly's total profit?

- ○ $196,000
- ○ $180,000
- ○ $160,000
- ○ $202,000

13 Answer

Question 14

4 pts

A monopoly's demand function is $Q = 144 - 4P$. Its total cost function is $1,800 + 12Q. What price will the firm charge if it uses block pricing?

- ○ $2,304
- ○ $2,786
- ○ $2,742
- ○ $2,846

14 Answer **2304**

Question 15

4 pts

Consider a Bertrand oligopoly consisting of eight firms that produce an identical product at a marginal cost of $200. The inverse demand for this product is $P = 1400 - 4Q$. What is the equilibrium level of output in this market?

- ○ 300
- ○ 450
- ○ 350
- ○ 375

Question 15

4 pts

Consider a Bertrand oligopoly consisting of eight firms that produce an identical product at a marginal cost of $200. The inverse demand for this product is $P = 1300 - 5Q$. What is the equilibrium level of output in this market?

- ○ 340
- ○ 360
- ○ 220
- ○ 480

15 Answer **220**

Question 16

4 pts

A monopoly's demand function is $Q = 72 - P/5$. The internal marginal cost is 15Q and the external marginal cost is 4Q. What is the socially efficient output for the firm?

- ○ 24
- ○ 18
- ○ 12
- ○ 15

16 Answer

Question 17

4 pts

The total cost function for firm A is: TC = $6000 + 8Q + 16Q^2$. The total cost function for firm B is: TC = $4000 + 35Q + 16Q^2$. Assume that firm A charges a price of $1,320 and produced 40 units, and firm B charges a price of $1,350 and produces 40 units. Which of the following statements is correct?

- ○ Firm A is engaging in predatory pricing because its price is below the price of firm B.
- ○ Firm A is engaging in predatory pricing because its price is below the marginal cost of firm B.
- ○ Firm A is engaging in predatory pricing because its price is below its own marginal cost.
- ○ Firm A is not engaging in predatory pricing because its price is above its own marginal cost.
- ○ Firm A is not engaging in predatory pricing because its price is above the marginal cost of firm B.

17 Answer

Question 18

4 pts

You are the manager of a firm that charges customers $19 per unit for the first three units purchased, $17 per unit for the next three units purchased, and $15 per unit thereafter. Your firm's marginal cost and average total cost are constant at $13. If the consumer purchases 8 units, what is your firm's profit?

- ○ None of the answers listed is correct.
- ○ $46
- ○ $34
- ○ $28

Question 18

4 pts

You are the manager of a firm that charges customers $20 per unit for the first five units purchased, $17 per unit for the next five units purchased, and $15 per unit thereafter. Your firm's marginal cost and average total cost are constant at $13. If the consumer purchases 12 units, what is your firm's profit?

- ○ $34
- ○ None of the answers listed is correct.
- ○ $64
- ○ $59

18 Answer: None are correct

Question 19

4 pts

A monopoly is selling the same product to two different types of consumers. The price elasticity of demand for consumers of group A is –3.5. The price elasticity of demand for consumers of group B is –2.0. The firm's marginal cost is $40. What price will the firm charge each group?

- ○ Group A price = $56; Group B price = $80
- ○ Group A price = $45; Group B price = $90
- ○ Group A price = $45; Group B price = $80
- ○ Group A price = $56; Group B price = $65

19 Answer: Group A = 56, Group B = 80

Question 20

4 pts

Four firms compete in a market to sell a homogeneous product with inverse demand function $P = 700 - 20Q$. Each firm produces at a constant marginal cost of \$60 and has no fixed costs. What will be the industry-level profits if the firms collude?

- \$3,680
- \$4,240
- \$4,840
- \$5,120

20 Answer

Question 21

4 pts

The inverse demand function of a monopoly is: $P = 2000 - 5Q$. The firm's marginal cost and average total cost are constant at \$1,200. How much would the monopoly be willing to pay to not have to increase its output to the output that would be found under perfect competition?

- \$44,000
- \$32,000
- \$24,000
- \$40,000

21 Answer

Question 22

4 pts

Which of the following is correct in a limit pricing situation?

- ○ The residual demand curve corresponds to the market demand curve.
- ○ At the limit price. the incumbent's profit is higher than at the monopoly price and this limits the harm done to the incumbent by the new entrant
- ○ The limit price equals the monopoly price.
- ○ The incumbent produces a larger quantity and sells at a lower price compared with a normal monopoly.
- ○ The limit quantity forces the incumbent and the new entrant to evenly split the market.

22 Answer **At the limit price. the incumbent's profit is higher than at the monopoly price and this limits the harm done to the incumbent by the new entrant**

Question 23

4 pts

A firm decides to use peak-load pricing. Its inverse demand function in the off-peak period is P = 3000 – 6Q, and during the peak period is P = 6000 – 6Q. The firm's marginal cost is constant at $1000 up to its peak capacity of 450 units. What price does the firm charge during the peak period?

- ○ $3,000
- ○ $4,100
- ○ $3,300
- ○ $1,200

23 Answer **3,300**

Question 24

4 pts

Which of the following statements about penetration pricing is not correct?

- ◯ It is a pricing strategy that can be used to overcome network effects.
- ◯ It is a pricing strategy that is sometimes employed by firms that attempt to enter a market.
- ◯ This pricing strategy is not used by perfectly competitive firms.
- ◯ An incumbent firm uses this strategy to prevent competitors from entering the market.
- ◯ This pricing strategy is similar to predatory pricing in that a firm may suffer in the short run in order to earn higher long-term profits.

24 Answer

Question 25

4 pts

Which of the following statements is incorrect regarding a pricing strategy?

- ◯ With two-part pricing, the consumer is forced into making an all or nothing decision and buys multiple units.
- ◯ With randomized pricing, the incentive to have a price war is reduced since price information quickly becomes obsolete.
- ◯ With cross-subsidization, a firm enhances profitability from one good/service by having reduced profits from another good/service it sells.
- ◯ With a price matching strategy, lower prices end up not changing market share, so prices tend to remain high.
- ◯ With first degree price discrimination involving a good that can be purchased in infinitesimal units, all of the consumer surplus is captured by the firm.

25 Answer **with randomized pricing, the incentive**