Chapter Ten

1. Perfect competition is a market structure with
   a. few firms
   b. one firm
   c. price-taking firms
   d. numerous firms whose products are imperfect substitutes
   e. none of the above

2. The demand curve for a perfectly competitive firm is
   a. perfectly inelastic
   b. unit elastic
   c. infinitely elastic
   d. downward sloping
   e. identical to the market demand curve

3. A perfectly competitive firm maximizes profits by picking output where
   a. P = MC
   b. MR < MC
   c. P = TC
   d. P = VC
   e. P = FC

4. A firm with a total revenue TR = 4Q _____ perfectly competitive.
   a. must be
   b. would be if P = 2
   c. would be if P = 4
   d. would be if P = 8
   e. could never be

5. In the long run, perfectly competitive firms earn _____ economic profit
   a. positive
   b. zero
   c. negative
   d. positive or zero
   e. positive, zero or negative
6. A firm in a competitive industry has a total cost function of $TC = 0.2Q^2 + 5Q + 30$, whose corresponding marginal cost curve is $MC = 0.4Q + 5$. If the firm faces a price of 7, what quantity should it sell?
   a. 2
   b. 4
   c. 5
   d. 10
   e. none of the above

7. And what profit does the firm make at this price?
   a. 25
   b. 10
   c. -10
   d. -25
   e. none of the above

8. And should the firm shut down?
   a. yes, shut down right away
   b. not in the short run but yes shut down in the long run
   c. yes shut down in the short run but not in the long run
   d. no, should never shut down
   e. none of the above

9. And if the firm instead faces a price of 9, what quantity should it sell?
   a. 2
   b. 4
   c. 5
   d. 10
   e. none of the above

10. And what profit does the firm make at the new higher price?
    a. 25
    b. 10
    c. -10
    d. -25
    e. none of the above
Chapter Eleven

11. Monopoly is a market structure with
   a. few firms
   b. one firm
   c. price-taking firms
   d. numerous firms whose products are imperfect substitutes
   e. none of the above

12. In the long run, a monopolist earns ____ economic profit.
   a. positive
   b. zero
   c. negative
   d. positive or zero
   e. positive, zero or negative

13. A monopolist maximizes profits by selecting output where
   a. P = MC
   b. MR = MC
   c. P = TC
   d. P = VC
   e. P = FC

14. A firm with a total revenue TR = 4Q ____ a single-price monopolist.
   a. must be
   b. would be if P = 2
   c. would be if P = 4
   d. would be if P = 8
   e. could never be

15. A monopolist faces a demand curve ____ the demand curve for ____.
   a. more elastic than, the market
   b. less elastic than, the market
   c. more elastic than, a perfectly competitive firm
   d. less elastic than, a perfectly competitive firm
   e. as elastic as, a perfectly competitive firm
16. A monopolist has a demand curve given by \( P = 56 - 2Q \) and a total cost curve given by \( TC = 20Q \). The associated marginal cost curve is \( MC = 20 \). What is the monopolist's marginal revenue curve?
   a. \( MR = 56 - Q \)
   b. \( MR = 56 - 2Q \)
   c. \( MR = 56 - 3Q \)
   d. \( MR = 56 - 4Q \)
   e. none of the above

17. And what is the monopolist's profit maximizing quantity?
   a. 3
   b. 6
   c. 9
   d. 18
   e. none of the above

18. And what price will the monopolist charge?
   a. 3
   b. 6
   c. 9
   d. 18
   e. none of the above

19. And how much economic profit will the monopolist earn?
   a. 36
   b. 44
   c. 90
   d. 162
   e. none of the above

20. And what quantity would the monopolist pick if instead of charging a single price, it could perfectly discriminate?
   a. 3
   b. 6
   c. 9
   d. 18
   e. none of the above
21. Oligopoly is a market structure with
   a. few firms
   b. one firm
   c. price-taking firms
   d. numerous firms whose products are imperfect substitutes
   e. none of the above

22. In the long run, oligopolists earn economic profits that are
   a. positive
   b. zero
   c. negative
   d. positive or zero
   e. positive, zero, or negative

23. A Cournot duopolist maximizes profits by selecting output where
   a. \( P = MC \)
   b. \( MR = MC \)
   c. \( P = TC \)
   d. \( P = VC \)
   e. \( P = FC \)

24. A firm with a total revenue \( TR = 4Q \) _____ a Cournot duopolist.
   a. must be
   b. would be if \( P = 2 \)
   c. would be if \( P = 4 \)
   d. would be if \( P = 8 \)
   e. could never be

25. Cournot duopolists choose output assuming _____ stays the same.
   a. their rival's price
   b. market price
   c. their rival's quantity
   d. total industry output
   e. their rival's cost
26. The market demand curve for a pair of Cournot duopolists is given as \( P = 56 - 2Q \), where \( Q = Q_1 + Q_2 \). The constant per unit marginal cost is 20 for each duopolists (there are no fixed costs). What is the marginal revenue function for the first firm?
   a. \( MR = 56 - Q \)
   b. \( MR = 56 - 2Q \)
   c. \( MR = 56 - Q_1 - 2Q_2 \)
   d. \( MR = 56 - Q_2 - 2Q_1 \)
   e. none of the above

27. And what is the reaction function for the first firm?
   a. \( Q_1 = 36 - 2Q_2 \)
   b. \( Q_1 = 36 - Q_2 \)
   c. \( Q_1 = 18 - Q_2/2 \)
   d. \( Q_1 = 9 - Q_2/2 \)
   e. none of the above

28. And what total quantity would the firms produce?
   a. 6
   b. 12
   c. 18
   d. 24
   e. none of the above

29. And what price would they charge?
   a. 8
   b. 12
   c. 24
   d. 32
   e. none of the above

30. And how much economic profit will each firm earn?
   a. 18
   b. 36
   c. 60
   d. 72
   e. none of the above
Chapter Fourteen

31. A monopsonist is a firm that
   a. is the only buyer in the labor market
   b. is a price taker in the labor market
   c. has a horizontal demand curve for labor
   d. has an upward sloping demand curve for labor
   e. faces a downward sloping demand curve for its output

32. In a perfectly competitive labor market, firms hire labor until the
   a. wage equals the rental rate on capital
   b. wage equals the marginal product of labor
   c. wage equals the value of the marginal product of labor
   d. marginal factor cost equals the marginal product of labor
   e. marginal factor cost equals the value of the marginal product of labor

33. In a monopsonistic labor market, the firm hires labor until
   a. wage equals the rental rate on capital
   b. wage equals the marginal product of labor
   c. wage equals the value of the marginal product of labor
   d. marginal factor cost equals the marginal product of labor
   e. marginal factor cost equals the value of the marginal product of labor

34. A firm that hires labor in a perfectly competitive labor market
   a. is the only buyer in the labor market
   b. is a price taker in the labor market
   c. has a horizontal demand curve for labor
   d. has an upward sloping demand curve for labor
   e. faces a downward sloping demand curve for its output

35. A minimum wage causes employment to ____.
   a. rise if the labor market is perfectly competitive
   b. fall if the labor market is perfectly competitive
   c. fall if the labor market is monopsonistic
   d. rise if labor demand is elastic
   e. fall if labor supply is elastic
36. If a poor person has perfect complement preferences requiring 4 hours of leisure for every $10 of income and can work for $5/hour, how many hours of leisure will be consumed and how much income earned?
   a. $M = 40, h = 16$
   b. $M = 50, h = 14$
   c. $M = 60, h = 12$
   d. $M = 70, h = 10$
   e. none of the above

37. If a payment of $15/day is to be given to this poor person, what would be the new daily budget constraint?
   a. $M = 5 (24 - h) + 15$
   b. $M = 15 (24 - h)$
   c. $M = 10 (24 - h)$
   d. $M = 5 (24 - h)$
   e. none of the above

38. And how many hours of leisure will be consumed and income earned (if have the same perfect complement preferences as above)?
   a. $M = 45, h = 18$
   b. $M = 55, h = 16$
   c. $M = 65, h = 14$
   d. $M = 75, h = 12$
   e. none of the above

39. If instead the poor person receives a subsidy equal to 50 percent of any wage income earned, what would be the new daily budget constraint?
   a. $M = 5 (24 - h) + 15$
   b. $M = 10 (24 - h)$
   c. $M = 7.5 (24 - h)$
   d. $M = 5 (24 - h)$
   e. none of the above

40. And how many hours of leisure will be consumed and income earned (if have the same perfect complement preferences as above)?
   a. $M = 45, h = 18$
   b. $M = 55, h = 16$
   c. $M = 65, h = 14$
   d. $M = 75, h = 12$
   e. none of the above
Chapter Ten

1c Perfect competition is a market structure with price-taking firms.
2c The demand curve for a perfectly competitive firm is infinitely elastic.
3a A perfectly competitive firm maximizes profits by picking output where \( P = MC \).
4c A firm with a total revenue \( TR = 4Q \) would be perfectly competitive if \( P = 4 \).
5b In the long run, perfectly competitive firms earn zero economic profit.

6c A firm in a competitive industry has a total cost function of \( TC = 0.2Q^2 + 5Q + 30 \), whose corresponding marginal cost curve is \( MC = 0.4Q + 5 \). If the firm faces a price of 7, what quantity should it sell? \( Q = 5 \)

7d And what profit does the firm make at this price? -25
8b And should the firm shut down? Not in the short run but yes shut down in the long run.
9d And if the firm instead faces a price of 9, what quantity should it sell? \( Q = 10 \)
10c And what profit does the firm make at the new higher price? -10

Chapter Eleven

11b Monopoly is a market structure with one firm.
12d In the long run, a monopolist earns positive or zero economic profit.
13b A monopolist maximizes profits by selecting output where \( MR = MC \).
14e A firm with a total revenue \( TR = 4Q \) could never be a single-price monopolist.
15d A monopolist faces a demand curve less elastic than the demand curve for a perfectly competitive firm.

16d A monopolist has a demand curve given by \( P = 56 - 2Q \) and a total cost curve given by \( TC = 20Q \). The associated marginal cost curve is \( MC = 20 \). What is the monopolist's marginal revenue curve? \( MR = 56 - 4Q \)
17c And what is the monopolist's profit maximizing quantity? \( Q = 9 \)
And what price will the monopolist charge? \( P = 38 \) none of the above

And how much economic profit will the monopolist earn? 162

And what quantity would the monopolist pick if instead of charging a single price, it could perfectly discriminate? \( Q = 18 \)

Chapter Thirteen

Oligopoly is a market structure with few firms.

In the long run, oligopolists earn economic profits that are positive or zero.

A Cournot duopolist maximizes profits by selecting output where \( MR = MC \).

A firm with a total revenue \( TR = 4Q \) could never be a Cournot duopolist.

Cournot duopolists choose output assuming their rival's quantity stays the same.

The market demand curve for a pair of Cournot duopolists is given as \( P = 56 - 2Q \), where \( Q = Q_1 + Q_2 \). The constant per unit marginal cost is 20 for each duopolists (there are no fixed costs). What is the marginal revenue function for the first firm? \( MR = 56 - 2Q_2 - 4Q_1 \) none of the above

And what is the reaction function for the first firm? \( Q_1 = 9 - Q_2/2 \)

And what total quantity would the firms produce? \( Q = 12 \)

And what price would they charge? \( P = 32 \)

And how much economic profit will each firm earn? 72

Chapter Fourteen

A monopsonist is a firm that is the only buyer in the labor market.

In a perfectly competitive labor market, firms hire labor until the wage equals the value of the marginal product of labor.

In a monopsonistic labor market, the firm hires labor until marginal factor cost equals the value of the marginal product of labor.

A firm that hires labor in a perfectly competitive labor market is a price taker in the labor market.

A minimum wage causes employment to fall if the labor market is perfectly competitive.
36a If a poor person has perfect complement preferences requiring 4 hours of leisure for every $10 of income and can work for $5/hour, how many hours of leisure will be consumed and how much income earned? M = 40, h = 16

37a If a payment of $15/day is to be given to this poor person, what would be the new daily budget constraint? M = 5 (24 - h) + 15

38a And how many hours of leisure will be consumed and income earned (if have the same perfect complement preferences as above)? M = 45, h = 18

39c If instead the poor person receives a subsidy equal to 50 percent of any wage income earned, what would be the new daily budget constraint? M = 7.5 (24 - h)

40a And how many hours of leisure will be consumed and income earned (if have the same perfect complement preferences as above)? M = 45, h = 18