MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) An oligopolist differs from a perfect competitor in that
   A) there is cutthroat competition in perfect competition but little competition in oligopoly because firms have significant market power.
   B) the market demand curve for a perfectly competitive industry is perfectly elastic but it is downward-sloping in an oligopolistic industry.
   C) there are no entry barriers in perfect competition but there are entry barriers in oligopoly.
   D) firms in an oligopoly do not produce homogeneous products while firms in perfect competition do.

2) Which of the following is the best example of an oligopolistic industry?
   A) the pharmaceutical industry
   B) public education
   C) Agriculture
   D) the beef market

3) Oligopolies are difficult to analyze because
   A) the firms are so large.
   B) oligopolies are a recent development so economists have not had time to develop models.
   C) demand and cost curves do not exist for these types of industries.
   D) how firms respond to a price change by a rival is uncertain.

4) A market comprised of only two firms is called a
   A) monopolistically competitive market.
   B) duopoly.
   C) competitive market.
   D) monopoly.

5) A dominant strategy
   A) is one that is the best for a firm, no matter what strategies other firms use.
   B) is one that a firm is forced into following by government policy.
   C) involves deciding what to do after all rivals have chosen their own strategies.
   D) involves colluding with rivals to maximize joint profits.

6) A cartel is
   A) a group of firms that enter into an informal agreement to fix prices to maximize joint profits.
   B) a group of firms that enter into a formal agreement to fix prices to maximize joint profits.
   C) a temporary storage facility for automobiles.
   D) an example of a group of firms that collectively regulate a competitive industry.

7) A member of a cartel like OPEC has an incentive to
   A) support equal production quotas for each member.
   B) abide by its individual production quota.
   C) argue for larger production quotas for each member of the cartel.
   D) agree to a low cartel production level and then produce more than its quota.
Table 13-3

<table>
<thead>
<tr>
<th>Nigeria’s (N) Choices</th>
<th>Saudi Arabia’s (S) Choices</th>
<th>Low Output</th>
<th>High Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Output</td>
<td>S: $100 million profit</td>
<td>N: $20 million profit</td>
<td></td>
</tr>
<tr>
<td>High Output</td>
<td>S: $80 million profit</td>
<td>N: $30 million profit</td>
<td></td>
</tr>
</tbody>
</table>

Suppose OPEC has only two producers, Saudi Arabia and Nigeria. Saudi Arabia has far more oil reserves and is the lower cost producer compared to Nigeria. The payoff matrix in Table 13–3 shows the profits earned per day by each country. "Low output" corresponds to producing the OPEC assigned quota and "high output" corresponds to producing the maximum capacity beyond the assigned quota.

8) Refer to Table 13–3. Is there a dominant strategy for Saudi Arabia and, if so, what is it?
   A) Yes, it has a dominant strategy depending on what Nigeria does.
   B) No, there is no dominant strategy.
   C) Yes, the dominant strategy is to produce a high output.
   D) Yes, the dominant strategy is to produce a low output.

9) Refer to Table 13–3. Is there a dominant strategy for Nigeria and, if so, what is it?
   A) No, there is no dominant strategy.
   B) Yes, the dominant strategy is to produce a low output.
   C) Yes, it has a dominant strategy depending on what Saudi Arabia does.
   D) Yes, the dominant strategy is to produce a high output.

10) Refer to Table 13–3. What is the Nash equilibrium in this game?
    A) In the Nash equilibrium Saudi Arabia produces a low output and earns a profit of $80 million and Nigeria produces a high output and $30 million respectively.
    B) In the Nash equilibrium both Saudi Arabia and Nigeria produce a low output and earn a profit of $100 million and $20 million respectively.
    C) There is no Nash equilibrium.
    D) In the Nash equilibrium both Saudi Arabia and Nigeria produce a high output and earn a profit of $60 million and $20 million respectively.

11) A monopoly is a seller of a product
    A) with a perfectly inelastic demand.
    B) without a well-defined demand curve.
    C) with many substitutes.
    D) without a close substitute.

12) A United States government patent lasts
    A) forever.
    B) 50 years.
    C) 20 years.
    D) 7 years.
13) Compared to perfect competition, the consumer surplus in a monopoly
A) is unchanged because price and output are the same.
B) is eliminated.
C) is higher because price is higher and output is the same.
D) is lower because price is higher and output is lower.

Table 13–2

<table>
<thead>
<tr>
<th>Wal-Mart’s (W) Choices</th>
<th>High Price</th>
<th>Low price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target’s (T) Choices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High Price</strong></td>
<td>W: $10,000 profit</td>
<td>T: $10,000 profit</td>
</tr>
<tr>
<td><strong>Low price</strong></td>
<td>W: $14,000 profit</td>
<td>T: $7,000 profit</td>
</tr>
<tr>
<td>W: $5,000 profit</td>
<td>T: $14,000 profit</td>
<td></td>
</tr>
</tbody>
</table>

Table 13–2 shows the payoff matrix for Wal-Mart and Target from every combination of pricing strategies for the popular PlayStation 3. At the start of the game each firm charges a low price and each earns a profit of $7,000.

14) Refer to Table 13–2. Is the current strategy in which each firm charges the low price and earns a profit of $7,000 a Nash equilibrium? If not, why and what is the Nash equilibrium?
A) No, it is not a Nash equilibrium because each firm can do better by charging the high price.
   The Nash equilibrium occurs when each firm charges the high price and earns a profit of $10,000.
B) Yes, the current situation is a Nash equilibrium.
C) No, the current situation is not a Nash equilibrium. The Nash equilibrium for each firm is to have the other charge a high price and for the firm in question charge a low price.
D) No, the current situation is not a Nash equilibrium; it is a dominant strategy equilibrium. There is no Nash equilibrium in this game.

15) Refer to Table 13–2. For each firm, is there a better outcome than the current situation in which each firm charges the low price and earns a profit of $7,000?
A) Yes, the firms can implicitly collude and agree to charge a higher price.
B) Yes, each firm can implicitly agree to increase output and not to deviate from a low price.
C) No, any other strategy hurts consumers.
D) No, there is no incentive for each firm to consider any other strategy.

16) Refer to Table 13–2. Suppose Wal-Mart and Target both advertise that they will match the lowest price offered by any competitor. What is the purpose of such a strategy?
A) to signal to each other that they will not hesitate to initiate a price war
B) to signal to each other to share the market equally
C) to signal to each other not to charge below the current low price
D) to signal to each other that they intend to charge the high price
17) **Refer to Table 13–2.** Suppose pricing PlayStations is a repeated game in which Wal-Mart and Target will be selling the game system in competition over a long period of time. In this case, what is the most likely outcome?

A) a noncooperative equilibrium in which each firm charges the low price.
B) a cooperative equilibrium in which each firm charges the high price.
C) a cooperative equilibrium in which each firm charges the low price.
D) a noncooperative equilibrium in which each firm charges the high price.

18) In many business situations one firm will act first, and then other firms will respond. To help analyze these types of situations economists use

A) sequential games.
B) follow-the-leader-games.
C) retaliation games.
D) bargaining games.

**Figure 13–1**

A few years ago Netflix (N) pioneered an online DVD rental service. Blockbuster (B), a brick and mortar DVD/video rental company, waited until Netflix had been in business for over a year before deciding whether to establish its own online rental service. At this point, Netflix had to decide whether or not to lower its subscription price in order to deter Blockbuster’s entry into the market. Figure 13–1 shows the decision tree for the Netflix–Blockbuster entry game.

19) **Refer to Figure 13–1.** If Netflix lowers its price will this deter Blockbuster from setting up an online DVD rental service?

A) No, because Blockbuster will make a larger profit than Netflix if it chooses to compete.
B) Yes, because Blockbuster stands to lose $1 million if it competes with Netflix.
C) No, because Blockbuster will make a profit if it competes with Netflix.
D) Yes, because Blockbuster will make a smaller profit than Netflix if it chooses to compete.
20) **Refer to Figure 13-1.** Does it make sense for Netflix to lower its price in order to deter Blockbuster’s entry into the online DVD rental market?

A) Yes, because Netflix stands to make a profit of $7 million by lowering its price and keeping Blockbuster out of the market.

B) No, because Netflix will make a higher profit by keeping its subscription price unchanged, whether Blockbuster enters the market or not.

C) No, because Blockbuster will enter the market regardless of Netflix’s decision about its subscription price.

D) Yes, because it is always profitable to remain a monopoly.

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21) A monopoly firm’s demand curve

A) is more inelastic than the demand curve for the product.

B) is perfectly inelastic.

C) is inelastic at high prices and elastic at lower prices.

D) is the same as the market demand curve.

---

22) **Refer to Figure 14-3.** The profit-maximizing output and price for the monopolist are

A) output = 62; price = $18.

B) output = 62; price = $24.

C) output = 83; price = $22.

D) output = 104; price = $20.80.

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23) **Refer to Figure 14-3.** The monopolist’s total revenue is

A) $1,116.

B) $1,488.

C) $1,726.40

D) $1,826.

---

24) **Refer to Figure 14-3.** The monopolist’s total cost is

A) $1,116.

B) $1,240.

C) $1,660.

D) $1,726.40.

---

25) **Refer to Figure 14-3.** The monopolist earns a profit of

A) $0.

B) $170.

C) $248.

D) $372.
26) If a monopolist's marginal revenue is $35 per unit and its marginal cost is $25, then
   A) to maximize profit the firm should decrease output.
   B) to maximize profit the firm should increase output.
   C) to maximize profit the firm should continue to produce the output it is producing.
   D) Not enough information is given to say what the firm should do to maximize profit.

27) The most profitable price for a monopolist is
   A) the price for which marginal revenue equals marginal cost.
   B) a price that maximizes the quantity sold.
   C) the highest price a consumer is willing to pay for the monopolist's product.
   D) the price at which demand is unit-elastic.

28) Collusion is
   A) common among monopoly firms.
   B) necessary for firms to raise money by borrowing from investors or from banks in order to
      fund research and development required to develop new products.
   C) an agreement among firms to charge the same price or otherwise not to compete.
   D) legal under U.S. antitrust laws if the intent is to increase competition.

29) In the United States, government policies with respect to monopolies and collusion are embodied in
   A) antitrust laws.
   B) common law, which the United States adopted from English law.
   C) the U.S. Constitution.
   D) the Supreme Court.

30) Which antitrust law prohibited firms from buying stock in competitors and from having directors
    serve on the boards of competing firms?
    A) the Securities and Exchange Act
    B) the Robinson–Patman Act
    C) the Sherman Act
    D) the Clayton Act

31) Whenever a firm can charge a price greater than marginal cost,
    A) the firm must be a monopolist.
    B) the firm will earn economic profits.
    C) consumers have the ability to choose a close substitute.
    D) there is some loss of economic efficiency.

32) When large firms in oligopoly markets cut their prices,
    A) rival firms will not cut their prices because they fear that the federal government will accuse
       them of collusion.
    B) rival firms will also cut their prices to avoid losing sales.
    C) rival firms will not change their prices because most of their customers have signed contracts
       that commit them to doing business with the same firms for the life of their contracts.
    D) we don't know for sure how rival firms will respond.

33) Which of the following is not a barrier to entry?
    A) an inelastic demand curve
    B) a patent
    C) economies of scale
    D) ownership of a key input
34) A patent is an example of
   A) occupational licensing.
   B) how market failure can lead to oligopoly.
   C) a government-imposed barrier to entry.
   D) how ownership of a key input creates a barrier to entry.

35) For many years the Aluminum Company of America (Alcoa) controlled most of the world’s supply of high quality bauxite, the ore needed to produce aluminum. What type of entry barrier was responsible for Alcoa’s position in the aluminum industry?
   A) economies of scale
   B) ownership of a key input
   C) a patent on the manufacture of aluminum
   D) a government-imposed barrier

36) A narrow definition of monopoly is that a firm is a monopoly if it can ignore
   A) government antitrust laws.
   B) the pricing decisions of firms that produce complementary products.
   C) the pricing decisions of its suppliers.
   D) the actions of all other firms.

37) To have a monopoly in an industry there must be
   A) a patent or copyright giving the firm exclusive rights to sell a product for 20 years.
   B) a public franchise, making the monopoly the exclusive legal provider of a good or service.
   C) an inelastic demand for the industry’s product.
   D) barriers to entry so high that no other firms can enter the industry.

38) When the government wants to give an exclusive right to one firm to produce a product, it
   A) grants a patent or copyright to an individual or firm.
   B) uses antitrust laws to keep other firms from entering the market.
   C) imposes a tariff on imports of the product.
   D) imposes a quota on imports of the product.

39) Experience with patents in the pharmaceutical industry shows that when patents on drugs expire,
   A) prices remain high without patent protection because of a lack of competition. Firms that are not granted patents cannot compete with firms that are granted patents.
   B) most patients will continue to buy the drugs from the same firms because their doctors recommend they buy brand-name drugs.
   C) firms will find ways to obtain additional patent protection – often by making cosmetic changes in drugs that were patented – so that they can continue charging high prices.
   D) other firms are free to produce chemically identical drugs. Competition reduces the profits that had been earned by the firms that received patents.

40) To maintain a monopoly, a firm must have
   A) marginal revenue equal to demand.
   B) few competitors.
   C) an insurmountable barrier to entry.
   D) a perfectly inelastic demand.

41) Governments grant patents to encourage
   A) research and development on new products.
   B) firms to form public enterprises.
   C) competition.
   D) low prices.
Figure 14–4 shows the demand and cost curves for a monopolist.

42) Refer to Figure 14–5. What is the economically efficient output level?  
A) 600 units  
B) 800 units  
C) 940 units  
D) 1160 units

43) Refer to Figure 14–5. What is the difference between the monopoly output and the perfectly competitive output?  
A) 140 units  
B) 240 units  
C) 340 units  
D) 560 units

44) Refer to Figure 14–5. What is the difference between the monopoly’s price and perfectly competitive industry’s price?  
A) The monopoly’s price is higher by $21.  
B) The monopoly’s price is higher by $13.  
C) The monopoly’s price is higher by $9.50.  
D) The monopoly’s price is higher by $3.50.

45) Relative to a perfectly competitive market, a monopoly results in  
A) a gain in producer surplus equal to the loss in consumer surplus.  
B) greater economic efficiency.  
C) a gain in producer surplus less than the loss in consumer surplus.  
D) a gain in producer surplus equal to the gain in consumer surplus.

46) Economic efficiency in a free market occurs when  
A) price is as low as possible.  
B) producer surplus is maximized.  
C) consumer surplus is maximized.  
D) the sum of consumer surplus and producer surplus is maximized.
47) If a monopolist's price is $50 per unit and its marginal cost is $25, then
A) to maximize profit the firm should continue to produce the output it is producing.
B) to maximize profit the firm should increase output.
C) to maximize profit the firm should decrease output.
D) Not enough information is given to say what the firm should do to maximize profit.

48) A monopolist’s profit maximizing price and output correspond to the point on a graph
A) where total costs are the smallest relative to price.
B) where price is as high as possible.
C) where average total cost is minimized.
D) where marginal revenue equals marginal cost and charging the price on the market demand curve for that output.

49) To enter a local cable television market, a firm needs a license from the city government. This is an example of
A) a natural monopoly.
B) a government-imposed barrier.
C) occupational licensing.
D) the government maintaining consistent standards in the broadcast industry.

50) How is a monopolist’s marginal revenue curve related to its demand curve?
A) The marginal revenue curve is twice the negative slope of the demand curve.
B) The marginal revenue curve is half the negative slope of the demand curve.
C) They are identical.
D) They are completely unrelated.
1) C
2) A
3) D
4) B
5) A
6) B
7) D
8) D
9) D
10) A
11) D
12) C
13) D
14) B
15) A
16) D
17) B
18) A
19) C
20) B
21) D
22) B
23) B
24) B
25) C
26) B
27) A
28) C
29) A
30) D
31) D
32) D
33) A
34) C
35) C
36) D
37) D
38) A
39) D
40) C
41) A
42) C
43) C
44) B
45) C
46) D
47) D
48) D
49) B
50) A