

1 The period in which at least one input is fixed in quantity is the

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points awarded

Scored

References

Multiple Choice

☒ Short run.

☐ Long run.

☐ Production run.

☐ Investment decision.

Explanation

The short run is the period in which the quantity (and quality) of some inputs can't be changed, or in other words inputs are fixed.

2

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points awarded

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References

The marginal physical product of labor in Figure 21.1 is negative for the

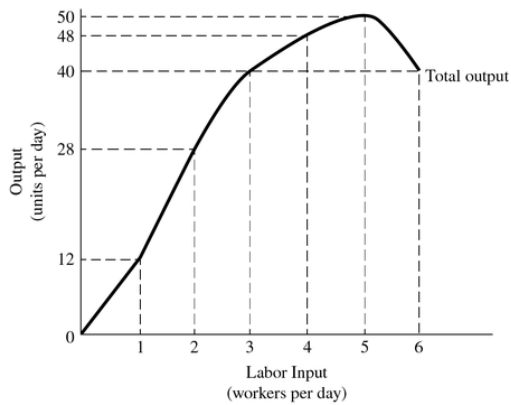


Figure 21.1

Multiple Choice

☒ Sixth worker.

☐ Fifth worker.

☐ Third worker.

☐ Fourth worker.

Explanation

If total output decreases with the addition of a new worker, the marginal physical product is not only diminishing but is actually negative.

3

In the short run, when a firm produces zero output, variable cost equals

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points awarded

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References

Multiple Choice

☐ Fixed cost.

☒ Zero.

☐ Marginal cost.

☐ Total cost.

**Explanation**

Variable costs start at zero when a firm produces zero.

4

In the short run, when a firm produces zero output, total cost equals

1/1  
points awarded

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References

Multiple Choice

☒ Fixed costs.

☐ Marginal costs.

☐ Zero.

☐ Variable costs.

**Explanation**

Fixed costs must be paid even if no output is produced. Variable costs start at zero; therefore when a firm produces zero, total costs are equal to fixed costs.

5

In economics, the long run is considered to be

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points awarded

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References

Multiple Choice

- ☐ One year.
- ☐ The time period when all costs are explicit.
- ☐ More than two years.
- ☒ The time period when all costs are variable.

#### Explanation

The long run is a period of time long enough for all inputs to be varied (no fixed costs).

6

Refer to Table 21.5:

Table 21.5

Q	TFC	TVC	TC	AVC	MC
0			15	–	–
1			23		
2					4
3		15			

The total cost of 3 units of output in Table 21.5 is

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References

Multiple Choice

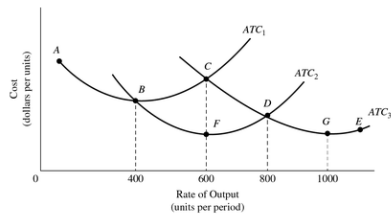
- ☐ \$38.
- ☒ \$30.
- ☐ \$23.
- ☐ \$15.

#### Explanation

Total cost is equal to fixed cost plus variable cost, which is \$30.

7

In Figure 21.4, a firm that produces over 800 units of output should choose a plant with which short-run average total cost function?



**Figure 21.4**  
**Long-Run Average Total Cost Curve**

Multiple Choice

- ☐ ATC<sub>2</sub> only.
- ☐ ATC<sub>1</sub> only.
- ☐ Either ATC<sub>2</sub> or ATC<sub>3</sub>.
- ☒ ATC<sub>3</sub> only.

#### Explanation

In the long run, the firm would choose the plant that yielded the lowest average cost for any desired rate of output.

8

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points awarded  
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References

Refer to Figure 21.5. Economies of scale occur in the following range of factory sizes

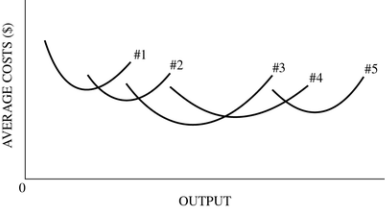


Figure 21.5

Multiple Choice

☐ #3 only.

☒ #1 through #3.

☐ #1 through #5.

☐ #1 to #2.

**Explanation**  
Reductions in minimum average costs that come about through increases in the size (scale) of plants and equipment occur over the range of plant sizes 1 through 3.

9

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points awarded  
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References

Which of the following statements about the relationship between economic costs and accounting costs is true?

Multiple Choice

☒ Accounting costs are always less than or equal to economic costs.

☐ Accounting costs are always greater than economic costs.

☐ Accounting costs are equal to or greater than economic costs.

☐ Accounting costs must always equal economic costs.

**Explanation**  
Accounting costs refer to the explicit dollar outlays made by a producer. Economic costs, in contrast, refer to the value of all costs, both explicit and implicit. Therefore accounting costs will be less than economic costs when implicit costs exist.

10

0/1  
points awarded  
Scored

References

Economies of scale

Multiple Choice

☒ Explain why average variable and average total costs decline in the short run.

☐ Explain why average total costs increase as output increases in the long run.

☐ Exist in both the short run and the long run.

☐ Explain why average total costs decline as output increases in the long run.

**Explanation**  
Economies of scale (or increasing returns to scale) exist when all inputs double but output more than doubles, which implies that the average costs have decreased.

11

A firm that makes zero economic profits

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points awarded  
Scored

References

Multiple Choice

- ☐ Covers all its costs, including a provision for normal profit.
- ☒ Incurs an accounting loss if fixed costs are greater than variable costs.
- ☐ Does not cover its variable costs and should shut down in the short run.
- ☐ Must eventually go bankrupt and exit the industry.

Explanation

A firm that is making zero economic profits is covering all of its costs including its opportunity costs; in other words, it is earning a normal profit.

12

1/1  
points awarded  
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References

Multiple Choice

- ☐ \$450,000.
- ☒ \$360,000.
- ☐ \$90,000.
- ☐ \$160,000.

Explanation

The explicit costs include wages and salaries, raw materials, equipment, rent, and interests for a total of \$360,000.

13

If a firm can change market prices by altering its output, then it

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References

Multiple Choice

- ☐ Faces a horizontal demand curve.
- ☐ Is a competitive firm.
- ☐ Is a price taker.
- ☒ Has market power.

Explanation

A firm that has market power will have the ability to control the market price for the good it sells, unlike a perfectly competitive firm that risks losing all of its customers, who will shop elsewhere, if it increases the price of its product.

14

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points awarded

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References

Perfect competition is a situation in which

Multiple Choice

- ☐ There are many firms and several buyers or sellers have market power.
- ☐ Every year, owners are likely to earn economic profits.
- ☒ There are many firms and no buyer or seller has market power.
- ☐ Every year, owners are likely to earn economic losses.

**Explanation**

A perfectly competitive firm has no market power-no ability to control the market price for the good it sells because if it boosts its price, consumers will shop elsewhere.

15

1/1  
points awarded

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References

The demand curve confronting a competitive firm

Multiple Choice

- ☐ Slopes downward, while the market demand curve is horizontal.
- ☒ Equals the marginal revenue curve.
- ☐ Is horizontal, as is the market demand curve.
- ☐ Slopes downward, and the marginal revenue curve is below it.

**Explanation**

Because a competitive firm can sell all its output at the prevailing price, the marginal revenue will always be equal to price, and the MR curve will be equal to the demand curve.

16

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points awarded

Scored



References

A perfectly competitive firm will maximize profits by choosing an output level where

Multiple Choice

- ☐ Price is greater than marginal cost.
- ☒ Price equals marginal cost.
- ☐ Price is greater than total cost.
- ☐ Price equals total cost.

**Explanation**

A competitive firm maximizes total profit at the output rate where MC is equal to price (which is the same as MR in perfect competition). If MC is less than price, the firm can increase profits by producing more. If MC exceeds price, the firm should reduce output.

17

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points awarded

Scored

References

If price is greater than marginal cost, a perfectly competitive firm should increase output because

Multiple Choice

- ☐ Total revenues would increase.
- ☐ Marginal costs are increasing.
- ☒ Additional units of output will add to the firm's profits (or reduce losses).
- ☐ The price it receives for its product is increasing.

Explanation

If an extra unit brings in more revenue than it costs to produce, it would add to total profit. Hence a competitive firm should expand the rate of production whenever price exceeds MC.

18

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points awarded

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References

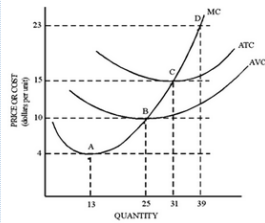


Figure 22.3

Refer to Figure 22.3 for a perfectly competitive firm. At a market price of \$23, total profits are maximized at an output of

Multiple Choice

- ☐ 25.
- ☐ 31.
- ☐ 13.
- ☒ 39.

Explanation

Total profit is maximized at the output level where price is equal to MC, 39.

19

1/1  
points awarded

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References

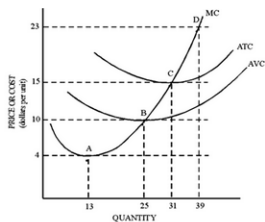


Figure 22.3

Refer to Figure 22.3 for a perfectly competitive firm. This firm should shut down at any price below

Multiple Choice

- ☐ \$4.
- ☒ \$10.
- ☐ \$23.
- ☐ \$15.

Explanation

A firm should shut down only if the losses from continuing production exceed fixed costs. This happens when total revenue is less than total variable cost or price is less than average variable cost.

20

When a firm minimizes its losses in the short run,

Multiple Choice

- ☐ The firm makes an investment decision.
- ☒ It continues to produce only if price exceeds average variable cost.
- ☐ The firm enters or exits from the market.
- ☐ It continues to produce only if price exceeds marginal revenue.

**Explanation**

If the price (or MR) is less than ATC but greater than AVC, then a perfectly competitive firm is losing less than its fixed costs and should continue producing in the short run in order to minimize its losses.

21

The decision to enter or exit an industry is known as the

Multiple Choice

- ☐ Output decision.
- ☐ Profit maximization decision.
- ☐ Production decision.
- ☒ Investment decision.

**Explanation**

An investment decision is the decision to build, buy, or lease plants and equipment, or to enter or exit an industry.

22

The marginal cost curve

Multiple Choice

- ☐ Is not affected by changes in the price of variable inputs.
- ☐ Is the long-run supply curve for a competitive firm at prices below the AVC curve.
- ☒ Is the short-run supply curve for a competitive firm at prices above the AVC curve.
- ☐ Slopes downward to the right as output increases.

**Explanation**

For competitive firms, marginal cost defines the lowest price a firm will accept for a given quantity of output. In this sense, the marginal cost curve is the supply curve; it tells us how quantity supplied will respond to price. However, a firm will shut down if price falls below minimum average variable cost. The supply curve does not exist below minimum AVC.



23

1/1  
points awarded

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References

In a competitive market where firms are earning economic losses, which of the following should be expected as the industry moves to long-run equilibrium, *ceteris paribus*?

Multiple Choice

- ☐ A lower price and fewer firms.
- ☐ A higher price and more firms.
- ☒ A higher price and fewer firms.
- ☐ A lower price and more firms.

**Explanation**

If economic losses exist in an industry, firms will want to exit. As they do, the market supply curve will shift to the left and cause the market price to increase until profits are normal.

24

1/1  
points awarded

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References

Which of the following is characteristic of a perfectly competitive market?

Multiple Choice

- ☐ Price below marginal revenue.
- ☐ Significant barriers to entry.
- ☒ A large number of firms.
- ☐ Differentiated products.

**Explanation**

A perfectly competitive industry has several distinguishing characteristics, including many firms, identical products, and low entry barriers.

25

1/1  
points awarded

Scored

References

If a firm finds that its marginal cost is greater than its price, it

Multiple Choice

- ☐ Should increase production.
- ☒ Should reduce production.
- ☐ Is maximizing its profit.
- ☐ Is maximizing its total revenue.

**Explanation**

If MC exceeds price, a firm is spending more to produce that extra unit than it is getting back in revenue; total profits will decline. Hence a firm should decrease production whenever price is less than MC.

26

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points awarded  
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References

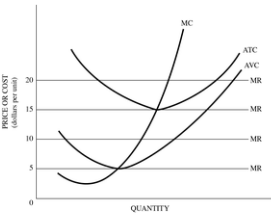


Figure 23.1  
Refer to Figure 23.1. If the market price equaled \$10, in the short run this firm should

Multiple Choice

- ☐ Raise the price.
- ☒ Produce with an economic loss.
- ☐ Shut down.
- ☐ Produce where the ATC is at a minimum.

**Explanation**  
In the short run, a firm should continue producing if it is making an economic profit or it is minimizing its losses by producing. This happens when price is greater than or equal to the minimum average variable cost (\$5). If the price is \$10, the firm would be losing money, but losing less than if it produced zero output.

27

1/1  
points awarded  
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References

For a perfectly competitive market, long-run equilibrium is characterized by all of the following *but* which one?

Multiple Choice

- ☐  $P = \text{minimum ATC}$ .
- ☐  $P = \text{MR}$ .
- ☒  $P = \text{maximum ATC}$ .
- ☐  $P = \text{MC}$ .

**Explanation**  
If the short-run equilibrium is profitable, other firms will want to enter the industry. As they do, market price will fall until it reaches the level of minimum ATC.

28

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References

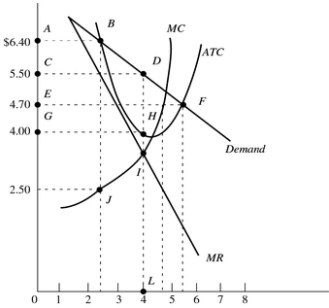


Figure 24.2

In Figure 24.2, the profit-maximizing level of output is

Multiple Choice

- ☐ Between 5 and 6 units.
- ☐ Between 2 and 3 units.
- ☐ Between 4 and 5 units.
- ☒ 4 units.

Explanation

Profit is maximized at the output level where MR is equal to MC, at an output level of 4.

29

1/1  
points awarded  
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References

A monopoly

Multiple Choice

- ☐ Charges the same price as a competitive industry, *ceteris paribus*.
- ☐ Maximizes profits at the output where  $P = MR$ .
- ☒ Produces less output than a competitive industry, *ceteris paribus*.
- ☐ Maximizes profits at the output level where  $MR > MC$ .

Explanation

When compared to a competitive market, monopolists tend to charge a higher price and produce a lower level of output.

30

1/1  
points awarded  
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References

Reductions in minimum average costs that come about through increases in the size of plants and equipment are called

Multiple Choice

- ☐ Barriers to entry.
- ☒ Economies of scale.
- ☐ Diseconomies of entry.
- ☐ Economies to monopoly power.

Explanation

Economies of scale occur when a firm increases efficiency by investing in a larger plant or more equipment.