

CHAPTER-4 | The Theory Of The Firm Under Perfect Competition

QUIZ
PART-01

1. Which characteristic best describes this market structure?
- Differentiated products and price-setting firms
 - Homogeneous products with perfect price knowledge
 - Few buyers and sellers with barriers to entry
 - Government-fixed prices with limited information

Explanation : The market is defined by homogeneous products, perfect knowledge of price, many buyers and sellers, and free entry and exit.

2. How is total revenue (TR) defined for a firm?
- $TR = AC \times q$
 - $TR = p \times q$
 - $TR = p \div q$
 - $TR = MC \times q$

Explanation : Total revenue equals the market price of the good multiplied by the firm's output.

3. A producer sells 5 jackets at ₹500 each. What is TR?
- ₹500
 - ₹1,000
 - ₹2,500
 - ₹5,000

Explanation : $TR = p \times q = 500 \times 5 = 2,500$.

4. A seller earns ₹2,500 from 10 units sold. What is average revenue (AR)?
- ₹25
 - ₹100
 - ₹250
 - ₹2,500

Explanation : $AR = TR \div q = 2,500 \div 10 = 250$.

5. Which expression gives marginal revenue (MR)?
- $MR = TR \div q$
 - $MR = \Delta TR \div \Delta q$
 - $MR = p \times q$
 - $MR = AR \times q$

Explanation : Marginal revenue is the change in total revenue resulting from a one-unit change in output.

6. TR increases from ₹20 at 2 units to ₹30 at 3 units. What is MR at the 3rd unit?

- ₹5
- ₹10
- ₹15
- ₹30

Explanation : $MR = \Delta TR \div \Delta q = (30 - 20) \div (3 - 2) = 10$.

7. How is profit (π) defined?

- $\pi = TR - AC$
- $\pi = AR - MC$
- $\pi = TR - TC$
- $\pi = p - q$

Explanation : Profit equals total revenue minus total cost.

8. At the profit-maximizing output for a perfectly competitive firm, which condition holds?

- $p = AC$
- $p = MC$
- $AR = AC$
- $MC = AC$

Explanation : In perfect competition $MR = p$; profit is maximized where $MR = MC$, so $p = MC$ at the optimal output.

9. For the $MR = MC$ point to yield maximum profit, what must be true about MC at that output?

- MC is falling
- MC is constant
- MC is rising (non-decreasing)
- MC is negative

Explanation : A rising MC at the intersection ensures a stable profit-maximizing point; if MC were falling, producing more would increase profit.

10. In the short run, when does a firm continue to produce?

- When $p < AVC$
- When $p \geq AVC$
- When $p \leq AC$
- When $p = AR$

Explanation : Short-run production continues only if price covers average variable cost; otherwise, shutting down avoids variable losses.