UNIT 3 – Theory of the Firm

About 40-55% of the AP Micro Exam will be from Unit 3.
The "theory of the firm" is the heart of a microeconomics course. This can be very abstract material. Students must understand the relationships among price, marginal revenue, average revenue, marginal cost, average cost, and profit. Students must recognize and understand the kinds of market structures that range between monopoly and perfect competition, specifically oligopoly and monopolistic competition.

Key ideas in Unit 3:

- All firms have costs. It is important to be able to define and plot graphically these major costs.
- Fixed costs do not change with output. Variable costs do change with output.
- Marginal Cost is the additional cost of producing an additional unit of output.
- Marginal cost eventually rises because of the law of diminishing returns.
- The marginal cost curve crosses the average variable cost curve and the average total cost curve at their lowest points.
- If a firm has revenues that cover all its costs, it breaks even.
- If a firm has more revenues than costs, it makes a profit.
- If a firm has less revenues than costs, it operates at a loss.
- In the long run, a firm must cover all its implicit and explicit costs, including a normal rate of profit.
- In the short run, a firm can operate at a loss as long as its revenue covers its variable costs.
- Economic profits are profits over and above the normal rate of profit in which a firm just covers its costs. A firm makes an accounting profit when its revenue exceeds its explicit costs. A firm makes an economic profit if it more than covers both its explicit and implicit costs.
- The object of a firm is to maximize profits and/or minimize loss.
- Firms maximize profits when they produce where MR=MC.
- Perfect competition exists when many firms produce a homogeneous product.
- For a perfectly competitive firm, marginal revenue is equal to price. A perfectly competitive firm produces where price equals marginal cost. A perfectly competitive firm breaks even in the long run.
- A monopoly occurs when one firm controls the market.
- Other things being constant, the most efficient allocation of resources occurs when a firm produces at the level of output where price is equal to marginal cost.
- In the long run, a perfectly competitive firm produces at an output where price equals market cost and also produces where average total cost reaches its lowest point. A perfectly competitive firm is allocatively and productively efficient in the long run.
- For a monopoly firm or any firm under imperfect competition, marginal revenue is less than price.
- A monopoly firm maximizes profits when marginal revenue equals marginal cost.
- A monopoly can make economic profits in the long run. However, a long-run economic profit is not guaranteed.
- In the long run, a monopoly firm charges a higher price and produces at a lower output than a perfectly competitive firm.
- A monopoly firm will operate where price is greater than marginal cost, causing a misallocation of resources.
- Oligopoly occurs when a few firms control the market.
- Monopolistic competition is close to pure or perfect competition except that there is product differentiation.

Know these items inside & out:

- Four different types of market structures and their characteristics.
- Understand basic computations of cost curves and be able to identify and draw them.
- Understand the economies of scale, constant returns to scale, and diseconomies of scale.
- Be able to relate a firm's cost curves to an industry's supply & demand curves.
- Understand the difference in short term and long term decision making.