

Test 9 - Monopolistic Competition

Name _____

Group _____

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

- 1) Which of the following is NOT regarded as a source of inefficiency in monopolistic competition? 1) _____
- A) product diversity.
 - B) the fact that long-run average cost is not minimized.
 - C) the fact that price exceeds marginal cost.
 - D) excess capacity.
 - E) all of the above.
- 2) For which of the following market structures is it assumed that there are barriers to entry? 2) _____
- A) monopoly
 - B) perfect competition
 - C) monopolistic competition
 - D) all of the above
 - E) B and C only
- 3) The most important factor in determining the long-run profit potential in monopolistic competition is 3) _____
- A) free entry and exit.
 - B) the reaction of rival firms to a change in price.
 - C) the elasticity of the firm's demand curve.
 - D) the elasticity of the market demand curve.
- 4) Which of the following is true for both perfect and monopolistic competition? 4) _____
- A) Firms produce a differentiated product.
 - B) Firms produce a homogeneous product.
 - C) Firms face a downward sloping demand curve.
 - D) There is freedom of entry and exit in the long run.
- 5) A monopolistically competitive firm in long run equilibrium: 5) _____
- A) will make negative profit.
 - B) will make positive profit.
 - C) will make zero profit.
 - D) any of the above are possible.

- 6) Which of the following is true in long run equilibrium for a firm in a monopolistic competitive industry? 6) _____
- A) The demand curve is tangent to average cost curve.
 - B) The demand curve is tangent to marginal cost curve.
 - C) The marginal cost curve is tangent to average cost curve.
 - D) The demand curve is tangent to marginal revenue curve.
- 7) A market with few entry barriers and with many firms that sell differentiated products is 7) _____
- A) oligopolistic.
 - B) purely competitive.
 - C) a monopoly.
 - D) monopolistically competitive.
- 8) Which of the following is true of the output level produced by a firm in long run equilibrium in a monopolistically competitive industry? 8) _____
- A) It does not produce at minimum average cost, and average cost is increasing.
 - B) It does not produce at minimum average cost, and average cost is decreasing.
 - C) It produces at minimum average cost.
 - D) Either B or C could be true.
- 9) Monopolistically competitive firms have monopoly power because they 9) _____
- A) face downward sloping demand curves.
 - B) are free to advertise.
 - C) are great in number.
 - D) have freedom of entry.
- 10) Which of the following is true in long run equilibrium for a firm in monopolistic competition? 10) _____
- A) $MC = ATC$.
 - B) $MC < ATC$.
 - C) $MC > ATC$.
 - D) Any of the above may be true.
- 11) Use the following two statements about monopolistic competition to answer this question. 11) _____
- I. In the long run, the price of the good will equal the minimum of the average cost.
 - II. In the short run, firms may earn a profit.
- A) I is true, and II is false.
 - B) I is false, and II is true.
 - C) I and II are false.
 - D) I and II are true.
- 12) Excess capacity in monopolistically competitive industries results because in equilibrium 12) _____
- A) each firm's output rate is too great to minimize average cost.
 - B) each firm's output rate is too small to minimize average cost.
 - C) price equals marginal cost.
 - D) firms make positive economic profit.

- 13) What happens to an incumbent firm's demand curve in monopolistic competition as new firms enter? 13) _____
- A) It becomes horizontal.
 - B) New entrants will not affect an incumbent firm's demand curve.
 - C) It shifts right.
 - D) It shifts left.
- 14) A monopolistically competitive firm in short run equilibrium: 14) _____
- A) will make zero profit (break-even).
 - B) will make negative profit (lose money).
 - C) will make positive profit.
 - D) any of the above are possible.
- 15) Which of the following is true for both perfectly competitive and monopolistically competitive firms in the long run? 15) _____
- A) $MC = ATC$.
 - B) $P > MR$.
 - C) Profit equals zero.
 - D) $P = MC$.

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 16) A firm operating in a monopolistically competitive market faces demand and marginal revenue curves as given below:

$$P = 10 - 0.1Q \quad MR = 10 - 0.2Q$$

The firm's total and marginal cost curves are:

$$TC = -10Q + 0.0333Q^3 + 130 \quad MC = -10 + 0.0999Q^2,$$

where P is in dollars per unit, output rate Q is in units per time period, and total cost C is in dollars.

- a. Determine the price and output rate that will allow the firm to maximize profit or minimize losses.
- b. Compute a Lerner index.

Answer Key

Testname: TEST 9 - MONOPOLISTIC COMP

- 1) A
- 2) A
- 3) A
- 4) D
- 5) C
- 6) A
- 7) D
- 8) B
- 9) A
- 10) B
- 11) B
- 12) B
- 13) D
- 14) D
- 15) C
- 16) *a.*

Calculate MR and equate it to MC.

$$MC = MR$$

$$-10 + 0.10Q^2 = 10 - 0.2Q$$

$$0.1Q^2 + 0.2Q - 20 = 0$$

The quadratic formula yields:

$$Q_1 = 13.17 \quad Q_2 = -15.15.$$

Use Q_1 since negative quantities are not meaningful.

$$\text{At } Q_1 = 13.17$$

$$P = 10 - 0.1(13.17) = 8.68$$

b.

Computation of monopoly power. The Lerner index is computed below:

$$L = \frac{P - MC}{P}$$

$$\text{At } Q = 13.17, P = 8.68, \text{ and } MC = 7.34$$

$$L = (8.68 - 7.34)/8.68 = 0.154$$