Microeconomics for engineers and mathematicians (BMEGT30A001, A410)

NAME:…………………………………….

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Practice exercises for the topics:

Introducing supply decisions, cost and supply, Perfect competition and pure monopoly (Test H)

A. <u>Multiple choice questions</u>

Instructions: Please fill in the table! Each question in section A is worth 2 points each. Choose the one alternative that <u>best</u> completes the statements or answers the question! (If there is seemingly more than one correct answer – the answer should be d or e.)

A/1	A/2	A/3	A/4	A/5	A/6	A/7	A/8	A/9	A/10	A/11	A/12	A/13	A/14	A/15

1. Which of the following corresponds most closely to the economists' notion of 'normal profit'?
   a.) The level of profits a firm makes by setting MC=MR.
   b.) The level of profits made by a typical firm in the industry.
   c.) The level of profits needed to persuade a firm to stay in its current line of business.
   d.) The rate of profits that ensures a comfortable standard of living for the entrepreneur.
   e.) All of the above.

2. Which of the following statements about the short-run marginal cost curve is/are *not* true?
   a.) Marginal cost is unaffected by changes in factor prices.
   b.) Marginal cost will be rising under conditions of diminishing returns.
   c.) When average cost is falling, marginal cost will be below average cost.
   d.) All of the above are true.
   e.) None of the above is true.

3. Which of the following situations characterize(s) a monopoly?
   a.) Price equals marginal cost.
   b.) Marginal revenue equals marginal cost.
   c.) There are no barriers to entry.
   d.) Average revenue is equal to marginal revenue
   e.) All of the above.

4. Which of the following situations characterize(s) a perfectly competitive market?
   a.) Price equals marginal cost.
   b.) Marginal revenue equals marginal cost.
   c.) There are no barriers to entry.
   d.) Average revenue is equal to marginal revenue
   e.) All of the above.

5. Which of the following conditions is/are necessary before the law of diminishing returns to a factor can be said to operate?
   a.) Other factors are held constant.
   b.) The state of technical knowledge does not change.
   c.) All units of the variable factor are homogeneous.
   d.) All of the above.
   e.) None of the above.

6. Which of the following statements describes the law of diminishing returns? Suppose in each case that labour is a variable factor but capital is fixed. As more labour is used:
   a.) Total output will fall because the extra units of labour will be of poorer quality than those previously employed.
   b.) The relative shortage of capital will eventually cause increases in total product to become progressively smaller.
   c.) After a while fewer units of labour will be needed in order to produce more output.
   d.) The marginal revenue obtained from each additional unit produced will decline.
   e.) None of the above.

7. In the short run …
   a.) a firm produces at a level of output that equates marginal revenue and marginal cost provided that at that level the price exceeds short-run average total cost.
   b.) a firm produces at a level of output that equates marginal revenue and marginal cost provided that at that level the price exceeds short-run average fixed cost.
   c.) a firm shuts down if at the level of output that equates MR and MC it cannot recoup at least the fixed costs.
   d.) a firm will close down if price if less than average revenue.
   e.) None of the above.

8. In the long run …
   a.) a firm never produces at a loss, it would always exit the industry if economic costs exceed total revenue.
   b.) a firm would always produce if they can equate marginal costs and the market price, even if it makes a loss.
   c.) a firm would always produce if they can equate marginal costs and the market revenue, even if it makes a loss.
   d.) a firm will close down if price if less than average revenue.
   e.) None of the above.

9. Suppose that there is an increase in the wage rate of workers in a certain industry. The industry is serviced by a monopolist firm. What happens to the firm’s costs, revenue and output?
   a.) The marginal cost (MC) curve will shift downwards and the profit-maximizing output increases.
   b.) The MC curve will shift upwards and the profit-maximizing output decreases.
   c.) The marginal revenue (MR) curve will shift downwards and the profit-maximizing output decreases.
   d.) The MR curve will shift upwards and the profit-maximizing output increases.
   e.) None of the above.

10. Suppose that there is a fall in market demand. The industry is serviced by a monopolist firm. What happens to the firm's costs, revenue and output?
    a.) The marginal cost (MC) curve will shift downwards and the profit-maximizing output increases.
    b.) The MC curve will shift upwards and the profit-maximizing output decreases.
    c.) The marginal revenue (MR) curve will shift downwards and the profit-maximizing output decreases.
    d.) The MR curve will shift upwards and the profit-maximizing output increases.
    e.) None of the above.

11. Which of the following items would shift the SAFC schedule downwards?
    a.) A rise in wages.
    b.) A rise in demand.
    c.) A rise in the rental rate of machines.
    d.) A rise in fixed costs.
    e.) None of the above.

12. Which of the following items would shift the MR schedule upwards?
    a.) A rise in wages.
    b.) A rise in demand.
    c.) A fall in the rental rate of machines.
    d.) A rise in fixed costs.
    e.) None of the above.

13. Which of the following items would shift the LMC schedule upwards?
    a.) A rise in wages.
    b.) A rise in demand.
    c.) A fall in the rental rate of machines.
    d.) A rise in fixed costs.
    e.) None of the above.

14. That level of profits which just pays the opportunity cost of the owners' money and time is called …
    a.) Supernormal profits.
    b.) Economic profits.
    c.) Accounting profits.
    d.) Normal profit.
    e.) None of the above.

15. Which of the following statements are valid?
    a.) LAC is falling when LMC is less than LAC
    b.) LAC is rising when LMC is greater than LAC
    c.) LAC is at a minimum at the output level at which LAC and LMC cross.
    d.) All of the above are valid.
    e.) None of the above are valid.

B. <u>True or false questions</u>

Instructions: Please decide if the following statements are true ('T') or false ('F'), and fill in the table! Each question in section B is worth 1 point each.

B/1	B/2	B/3	B/4	B/5	B/6	B/7	B/8	B/9	B/10

1. Opportunity cost plus accounting cost equals economic cost.
2. Firms maximize *profits* by selling as much output as they can.
3. When a firm's demand curve slopes down, marginal revenue will fall as output rises.
4. Any firm wanting to maximize profits will minimize cost for any given level of output.
5. A fall in marginal revenue will cause profits to be maximized at a *higher* output level.
6. The long-run supply decision is *determined* by finding the level of output at which long-run marginal cost is equal to marginal revenue.
7. Holding labour constant while increasing capital input will lead to diminishing returns.
8. The short-run supply curve for a perfectly competitive firm is *flatter* than the long-run supply curve
9. Price is equal to marginal revenue for a firm under perfect competition.
10. Total revenue is maximized *when* average revenue is at a maximum.