

1. Suppose a firm has a downward sloping demand curve. Which of the following will be true.

- A. The firm maximizes profits by setting marginal revenue equal to marginal costs
- B. The firm cannot have many competitors.
- C. The price charged by the firm will be less than marginal costs.
- D. The price charged by the firm will equal marginal costs.
- E. The firm always makes positive profits in the long run.

2. Suppose that income is 100, and the consumer consumes only food and clothing. The price of food is \$1, and of clothing \$2. Which of the following is NOT in the consumers **budget set**

A.	0 units of food, 0 units of clothing
B.	100 units of food, 0 units of clothing
<input checked="" type="checkbox"/> C.	0 units of food, 100 units of clothing
D.	40 units of food, 30 units of clothing
E.	60 units of food, 20 units of clothing

3. Suppose your income halves. Using the method of budget constraints and indifference curves we can conclude that

- A. You consume half as much of every good.
- B. You are half as happy as you were before.
- C. You consume half as much of normal goods.
- D. You consume half as much of inferior goods.
- E. You are less happy.

4. Professor Clark's family has adopted a mongrel dog, "Midnight," which is part Pitt Bull. Which of the following statements is **normative**?

- A. Professor Clark dislikes "Midnight."
- B. Dogs often carry unpleasant diseases.
- C. Pitt bulls are often vicious.
- D. Dogs depress Professor Clark because of the emptiness of their lives.
- E. "Midnight" should find a new home.

5. The supply curve for coffee is given by $P = 2$. The demand curve is $P = 10 - Q/10$. When a tax of \$2 per unit is imposed on producers

- A. The market price rises by \$2.
- B. The market price rises by less than \$2.
- C. The market price is unchanged.
- D. The market price falls by less than \$2.
- E. The market price falls by \$2.

6. The reason many economists argue that the efficient outcome should always be chosen by the government is that

- A. While people have different tastes everyone values efficiency.
- B. Efficiency measures count the desires of the rich much more than those of the poor, and it is the rich who have made America what it is.
- C. We cannot measure happiness, but we can count \$, and efficiency counts \$.
- D. Such a policy maximizes total income. The government can then redistribute if it wishes through tax policy.
- E. In the 1960s when people did not value efficiency economic growth was really slow.

7. Suppose that a firm has a total cost of $200 + 6Q$. Suppose the demand curve is $P = 12 - Q$. The profit maximizing price is then:

- A. \$6
- B. \$9
- C. \$12
- D. \$15
- E. \$18

8. Suppose that a firm has a total cost of $100 + 6Q$. Suppose the demand curve is $P = 12 - Q$. The profits of a profit maximizing firm are:

- A. \$91
- B. \$27
- C. \$0
- D. -\$27
- E. -\$91

9. A **monopolist** with a constant marginal cost of \$4 sells in five different markets with demand curves given as below. In which market will his/her price be highest?

- A. $P=4$
- B. $P=5$
- C. $P = 20 - Q$
- D. $P = 20 - 2Q$
- E. $P = 30 - Q$

10. A market in which there is no additional transaction that would benefit a buyer or a seller (without making anyone worse off) is called

- A. a free market
- B. a contestable market
- C. an efficient market
- D. An inefficient market
- E. a lucrative market

11. Which of the following is NOT true for a market with **Perfect Competition** in the long run?

- A. Free entry by firms.
- B. Many firms in the market.
- C. Price equals marginal cost.
- D. Price exceeds average cost.
- E. Profits are zero.

12. Suppose that in a **constant cost competitive industry** the long run average cost of each firm in \$ is given by $LAC = (16/q) + 1 + q$, and the long run marginal cost in \$ is $LMC = 1 + 2q$. The price in the long run will be

- A. \$3
- B. \$5
- C. \$7
- D. \$9
- E. \$11

13. The area between the supply curve and the demand curve in a competitive market is called

- A. Consumer surplus
- B. Producer surplus
- C. Total surplus
- D. Deadweight loss
- E. Rent seeking loss

14. If the percentage change in price is 10 and the percentage change in quantity demanded is 20, demand is

- A. Perfectly inelastic
- B. Inelastic
- C. Unit elastic
- D. Elastic
- E. Perfectly Elastic

15. The price elasticity of demand will typically be low in absolute value where a good

- A. Is a small share of expenditure and is a complement to other goods.
- B. Is normal.
- C. Is a small share of expenditure and is a substitute for other goods.
- D. Is a large share of expenditure and is a substitute for other goods.
- E. Is normal and is a complement to other goods.

Part B: Short Answer Question

(Worth 25 points. Points for each part in parentheses.)

Instructions: Write your answers on this exam sheet. Show any calculations needed to derive your answer.

1. Suppose Café Roma is the sole coffee shop in Davis. Suppose also the total cost of producing lattes per day is (in \$)

$$500 + Q$$

where Q is the number of lattes produced. The demand for lattes in the town is given by

$$Q_d = 360 - 40P$$

- a. (2) What is the marginal cost of a latte?

$$MC = 1$$

- b. (2) What is the average cost of a latte?

$$AC = \frac{500}{Q} + 1$$

- c. (2) What is marginal revenue as a function of quantity?

$$MR(Q) = 9 - \frac{Q}{20}$$

- d. (4) If the owners of Café Roma profit maximize, and a latte is sold for only one price, what is that price?

$$MR(Q) = MC(Q)$$

$$9 - \frac{Q}{20} = 1$$

$$Q^* = 160$$

$$P^* = 9 - \frac{160}{40} = \$5$$

- e. (2) What is the consumer surplus at the café's profit maximizing price?

$$CS = \frac{1}{2} \times (9 - 5) \times 160 = \$320$$

- f. (2) What are the profits per day of the café?

$$\begin{aligned} \text{profit} &= TR - TC \\ &= 5 \times 160 - (500 + 160) \\ &= \$140 \end{aligned}$$

- g. (4) What is the efficient quantity of lattes produced per day?

$$\begin{aligned} MC &= P \\ \Rightarrow P &= 1 \\ \Rightarrow Q &= 320 \end{aligned}$$

- h. (7) Inspired by his Econ 1A class, the Café owner offers the town a deal. For a fixed fee of \$700 per day he will sell lattes at marginal cost. If the money can be raised costlessly by taxation will citizens of the town on average benefit from the deal? Explain.

$$\text{Set } P = MC = \$1,$$

$$CS = \frac{1}{2} \times (9 - 1) \times 320 = \$1280$$

imposing a fixed fee of \$700

$$CS = \$1280 - \$700 = \$580$$

under price monopoly, (w/o fixed fee)

$$CS = \$320$$

CS under a fixed fee is higher,
Thus consumers prefer the fixed fee
price system.