

**Q-1.** A college student's monthly demand for pizza is given by the equation:

$Q_{\text{pizza}}^D = 15 - 0.75P_{\text{pizza}} + 0.01I - 0.25P_{\text{cola}}$	
Where	$Q_{\text{pizza}}^D$ is the number of pizzas ordered per month
	$P_{\text{pizza}}$ is the price of a pizza
	I is her monthly food budget
	$P_{\text{cola}}$ is the price of cola per bottle

The student's current monthly food budget is \$750, the price of a pizza is \$8, and the price of a bottle of cola is \$2.50/bottle. If the student's monthly food budget were to increase to \$1000, the slope of her demand curve for pizza would be closest to:

- A. -2.42.
- B. -1.33.
- C. -0.75.

**Q-2.** For a particular product produced by a firm, the quantity at which demand is unit elastic is most likely the quantity that maximizes:

- A. total profit from the product but not total revenue from the product.
- B. total revenue from the product but not total profit from the product.
- C. both total profit from the product and total revenue from the product.

**Q-3.** The market demand function for four-year private universities is given by the equation

$$Q_{\text{pr}}^D = 84 - 3.1 P_{\text{pr}} + 0.8I + 0.9P_{\text{pu}}$$

Where  $Q_{\text{pr}}^D$  is the number of applicants to private universities per year in thousands,  $P_{\text{pr}}$  is the average price of private universities (in thousands of USD), I is the household monthly income (in thousands of USD), and  $P_{\text{pu}}$  is the average price of public (government-supported). Assume that  $P_{\text{pr}}$  is equal to 38, I is equal to 100, and  $P_{\text{pu}}$  is equal to 18.

The cross-price elasticity of demand for private universities with respect to the price of public universities is closest to:

- A. 0.3.
- B. 3.1.
- C. 3.9.

**Q-4.** In the demand function  $Q_x^D = 4.5 - 0.8P_x + 0.2I - 0.06P_y$  where  $Q_x^D$  represents the quantity demanded of a good X,  $P_x$  is the price per unit of good X, I is consumers' income, and  $P_y$  is the price per unit of good Y, X, and Y are best described as:

- A. inferior goods.
- B. substitutes.

C. complements.

**Q-5.** In the case of a normal good with a decrease in own price, which of the following statements is most likely true?

- A. Both the substitution and income effects lead to an increase in the quantity purchased
- B. The substitution effect leads to an increase in the quantity purchased, while the income effect has no impact
- C. The substitution effect leads to an increase in the quantity purchased, while the income effect leads to a decrease