These questions were taken from material in the introductory microeconomics text by David N. Hyman entitled *Microeconomics*. However, the material should be contained in almost any undergraduate introductory microeconomics text. The questions are designed to cover some of the basic concepts and graphical tools typically used in introductory courses. The MBA Microeconomics course will build on these concepts and tools focusing on business applications.

1. Discuss the central differences between Microeconomics and Macroeconomics.

2. The owner of a factory producing rugby shirts can sell as many shirts as she wishes at a price of $20. The total revenue she receives is equal to the price of shirts multiplied by the number of shirts shipped. Draw a graph that shows how her totally monthly revenue (the y variable) will vary with monthly shipments of shirts (the x variable). Calculate the slope of the curve you have drawn and interpret its meaning from an economic point of view.

3. If the variable cost of production for the shirts discussed in the above question is a constant $15 per shirt and the fixed cost is $1000, draw the total cost curve. How many shirts does the firm need to sell to break even? Is the above variable cost function consistent with the law of diminishing returns?

4. The federal government announces that it will buy $3 a loaf all the bread that can’t be sold in a competitive market at that price. At the end of each week the government purchases 1 million loaves of bread. Use supply and demand analysis to show that the market equilibrium price is less that $3 per loaf. Explain why the price would drop if the government program were discontinued.

5. Define the elasticity of demand.

6. A monopolist will generally charge the highest price possible. Evaluate this statement.

7. What are some key differences between an oligopolistic market and a monopolistically competitive market? Give an example of each market.

8. Explain why the existence of industrial pollution might warrant government intervention into a perfectly competitive market.
1. Microeconomics focuses on how the market determines the prices and allocates goods and services. The unit of analysis for microeconomics is the individual consumer, firm, or industry. Topics covered include: demand and supply, cost functions, the impact of varying market conditions on firm decisions, market failures, antitrust and regulation, and industry case studies. Macroeconomics focuses on how aggregate economic variables are determined and how fluctuations in these variables affect firm behavior. The unit of analysis begins with the whole economy. Topics covered include: Gross National Product, inflation, unemployment, balance of trade and the political economy of various government agencies.

2. The graph is given below. Total revenue is simply price times quantity. The y intercept will be zero, since if the firm sells nothing it makes nothing (i.e., 0*20 = 0). The slope (the change in y (total revenue) divided by the change in x (quantity)) is equal to the price. (E.g., if the quantity sold is 10 and 15, the total revenue is $200 (10*20) and $300 (15*20), respectively. The increase in total revenue from 10 to 15 units is $100 ($300-$200) and the increase in quantity is 5 (15-10). Thus, the slope is $20 ($100/5). In economic terms, the slope of the total revenue curve can be interpreted as the additional revenue from selling one additional unit or marginal revenue. When the price is constant, marginal revenue is equal to the price of the good.

3. The total cost curve will have a y intercept of $1000; the cost of producing at zero output is equal to the fixed cost. The slope of the cost curve will be $15, since the variable costs are constant. The intersection of the total revenue and total cost curve yields the break even point. In this case, the two curves intersect at 200 units. The variable cost function is not consistent with the law of diminishing returns. The law of diminishing returns implies that, given at least one fixed input, the additional cost of producing additional units (marginal cost) begins to increase, at least after some point. In the example used in this question, the additional cost of producing and additional unit is always $15.
4. The graph is given below. The equilibrium price (P) is defined as that price for which quantity demanded (Q) is equal to quantity supplied (Q). This occurs when the demand and supply curves intersect. Since there is a surplus of 1 million loaves at $3, the market price must be below $3. If the government stopped purchasing the excess bread production, some firms would not sell all their bread. Rather than let the bread mold, some firms will lower their price. Price will continue to be pushed down until the equilibrium price is reached and there is no surplus of shortage of bread.

5. The elasticity of demand is defined as the percentage change in quantity demanded divided by the percentage change in price. Elasticity is a central economic concept that measures the price sensitivity of consumers.

6. The statement is wrong or at least very incomplete. A monopolist evaluates the market demand curve and its cost function to derive the optimal price. The monopolist continues to raise or lower price until the marginal revenue is equal to the marginal cost.

7. An oligopolistic market has only a few firms and entry into the industry may be difficult. A monopolistically competitive market has a large number of firms with some product differentiation and easy entry. The soft drink industry represents an oligopolistic market. The fast food industry could be considered a monopolistically competitive market.

8. Industrial pollution is an example of what economists call a negative externality. Industrial pollution imposes a cost on individuals in the surrounding area. Typically, the firm will not voluntarily compensate the affected individuals or install pollution control equipment. Since the pollution costs are not included in the firm's cost of production, the free market emits too much pollution and overproduces the good that creates the pollution. Thus, government intervention that reduces pollution can improve market efficiency.