

Principles of Microeconomics

Sample Mid-Term Examination

(Based on material in Chapters 1- 6)

Part A: Multiple Choice Questions (20 questions @ 1 mark each = 20 Marks)

1. Economics is conventionally divided into two subjects called
 - A. marginal benefit and marginal cost.
 - B. reservation price and opportunity cost.
 - C. microeconomics and macroeconomics.
 - D. rational economics and irrational economics.
 - E. economic surplus and economic deficit.

2. The cost-benefit principle
 - A. is not one of the authors' core ideas in economics.
 - B. implies that the cost of all alternatives should be included when choosing among alternative.
 - C. states that an action should be taken only if the extra benefit is at least as great as the extra cost.
 - D. states that an action should be taken only if the extra benefit is greater than the extra cost.
 - E. states that an action should be taken only if the extra benefit is less than the extra cost.

3. Sophia wants to go to a friend's house this evening, but has promised her mother that she would clean the house during that time. Her brother, James, has offered to clean the house for her if she will pay him \$10. Sophia replies, "I'll pay you five dollars (and not a cent more!)." The
 - A. \$10 represents Sophia's reservation price of going to her friend's house this evening.
 - B. \$5 represents Sophia's opportunity cost of cleaning the house this evening.
 - C. \$10 represents James' reservation price and Sophia's opportunity cost of going to her friend's house this evening.

- D. the difference between the \$10 James has asked for to clean the house and the \$5 Sophia has offered represents the economic surplus of going to her friend's house this evening.
- E. \$10 represents the opportunity cost and the \$5 is the marginal benefit of going to her friend's house this evening
4. Which of the following statements is consistent with the concept of positive economics?
- A. A decrease in the Goods and Services Tax (GST) should raise the government's tax revenues.
- B. Minimum wage rates should be raised by 5% to help the working poor.
- C. Canada should always balance the annual federal budget.
- D. The federal government should give more money to the Department of National Defence since much of their capital equipment is outdated.
- E. Mandatory retirement for university professors should be extended until the age of 70.
5. Ian paid \$475 for an airline ticket to fly to Acapulco, Mexico, for a spring break vacation. Unfortunately, he fell ill and could not go to Acapulco. When he called the airline to cancel the ticket, he was reminded that the ticket was nonrefundable, but that he could exchange it for another ticket within one year if he pays a \$75 fee at the time of the exchange. Several months later he is deciding whether to exchange the ticket for a ticket of the same price to Acapulco. The opportunity cost of go to Acapulco would equal the
- A. ticket price of \$475 plus the \$75 exchange fee, if he has no other trip that he will take within the year.
- B. ticket price of \$475 plus the \$75 exchange fee, if he has another trip that he will take within the year.
- C. \$75 exchange fee, if he has no other trip that he will take within the year.
- D. \$75 exchange fee, if he has another trip that he will take within the year.
- E. \$0, if he has no other trip that he will take within the year.
6. Mark recently switched his long distance telephone service from Ma Bell to Pa Bell and had to pay his local telephone company a \$10 fee to make the change. As an incentive to try their long distance services, Pa Bell promised to reimburse him for the switching fee if he chooses to switch to another carrier after trying their service. From Mark's perspective, the switching fee is a
- A. fixed cost and a sunk cost
- B. fixed cost, but not a sunk cost.
- C. variable cost and a sunk cost.
- D. variable cost, but not a sunk cost.
- E. neither a fixed cost nor a sunk cost.
7. To efficiently allocate a resource that is perfect divisible across different activities, one should allocate the resource such that the
- A. marginal benefit is greatest for each unit of production.
- B. marginal cost is greatest for each unit of production.
- C. marginal benefit is the same for every activity.
- D. marginal cost is the same for every activity.
- E. marginal cost equals the marginal benefit for every activity.

8. When each individual concentrates on performing the tasks and producing the goods for which he or she has the lowest opportunity cost, they are producing in accordance with the principle of
- A. increasing opportunity cost.
 - B. decreasing opportunity cost.
 - C. comparative advantage.
 - D. scarcity
 - E. absolute advantage.
9. A country's production possibilities curve is concave to the origin (i.e., bowed outward) because
- A. of the principle of scarcity.
 - B. the production of a good is expanded by first employing those resources with an absolute advantage.
 - C. the production of a good is expanded by first employing those resources with the lowest opportunity cost.
 - D. there is a tradeoff that requires a decrease in the production of one good in order to increase the production of another good.
 - E. of the principle of absolute advantage.
10. Despite the benefits of specialization and exchange indicated in the theory of comparative advantage, some groups have opposed free trade agreements because
- A. wealthier economies gain, but poor nations lose from free trade.
 - B. in order for one nation to gain from trade, another nation must lose.
 - C. they don't understand the theory of comparative advantage.
 - D. every individual does not gain from trade.
 - E. contrary to the theory of comparative advantage, evidence suggests that there are few benefits from free trade.
11. Suppose the price of gasoline increases. We would expect
- A. the demand for gasoline to decrease.
 - B. the demand for Sport Utility Vehicles (SUVs) to decrease.
 - C. the demand for SUVs to increase.
 - D. the quantity of gasoline demanded to increase.
 - E. the quantity of SUVs demanded to decrease.
12. If a market is at point of equilibrium and then demand increases while supply decreases, the change in the equilibrium price is _____ and the change in the equilibrium quantity is _____.
- A. positive; positive
 - B. positive; negative
 - C. positive; indeterminate
 - D. indeterminate; positive
 - E. negative; negative

13. Suppose that at a price of \$5, quantity demanded is 300 units and quantity supplied is 700 units. This market will experience _____ of _____ units.
- A. excess demand, 400 units
 - B. excess supply, -400 units
 - C. excess demand, -400 units
 - D. excess supply, 400 units
 - E. a shortage, 400 units
14. The total utility for the first five hamburgers consumed is 4, 10, 15, 18, and 19, respectively. The marginal utility of the 3rd hamburger is
- A. 15.
 - B. 10.
 - C. 5.
 - D. 3.
 - E. -3.
15. Assume the marginal utility of the 3rd candy bar is 15, the marginal utility of the 1st tube of toothpaste is 12, the price of candy is \$1.50/bar and the price of toothpaste is \$2.00/tube. If you buy three candy bars and one tube of toothpaste are you following the rational spending rule?
- A. Yes, this is an optimal combination of candy and toothpaste.
 - B. No, spend less on candy and more on toothpaste.
 - C. No, spend more on candy and less on toothpaste.
 - D. No, spend more on both candy and toothpaste.
 - E. No, spend less on both candy and toothpaste.
16. The correct mathematical statement of the price elasticity of demand is
- A. $(\Delta P/P)/(\Delta Q/Q)$.
 - B. $(\Delta Q/Q)/(\Delta P/P)$.
 - C. $\Delta P/\Delta Q$.
 - D. $\Delta Q/\Delta P$.
 - E. $(\Delta P/P)/\Delta Q$.
17. If the cross-price elasticity between two goods is negative, these goods are
- A. inferior.
 - B. normal.
 - C. substitutes.
 - D. complements
 - E. inelastic.
18. A production function examines the technical relationship between
- A. marginal revenue and marginal costs.
 - B. marginal product and marginal costs.
 - C. marginal product and average costs.
 - D. fixed costs and variable costs.
 - E. inputs and outputs.

19. The upward-sloping portion of the marginal cost curve lying above the minimum average variable cost curve is the firm's
- A. production function.
 - B. total cost curve.
 - C. supply curve.
 - D. diminishing marginal returns curve.
 - E. profit curve.
20. A perfectly competitive firm has reached its short-run shutdown point when the price it receives for its product is lower than the
- A. minimum average total cost.
 - B. minimum average variable cost.
 - C. minimum average fixed cost.
 - D. short-run cost-minimizing quantity of output.
 - E. marginal cost.

Part B: Short-Answer Questions (30 Marks)

Answer THREE of the following four questions (10 marks each)

B1. Production Possibility Boundaries

Consider a country which produces only agricultural goods and military goods. Both goods use capital and labour as production inputs, however, the agricultural goods are assumed to be more *labour-intensive*. On three separate graphs, draw the “original” production possibility boundary (military goods on the horizontal axis, agricultural goods on the vertical axis) and illustrate each of the following situations:

- a) the country observes large increases in immigration; (4 marks)
- b) there is a technological improvement in the production of military goods only; (3 marks)
- c) a neighbouring country threatens to invade and the country responds by devoting more resources to military goods. (3 marks)

B2 Demand and Supply Analysis

Using demand and supply analysis, graphically illustrate how the equilibrium price and quantity will change under the two following scenarios. Be certain to properly label your graphs.

a) Market for natural gas: (5 marks)

Over the past year, the number of houses in Calgary using natural gas for heating increases while the number of firms producing natural gas decreases.

b) Market for Kraft dinner macaroni (an “inferior” good): (5 marks)

Over the past year, the average income in Calgary rose by 5% while the Kraft dinner union leaders managed to gain large wage increases for their workers.

B3 Elasticity

In one month, a Pizza Hut restaurant sold 3,500 personal pizzas at \$3.50 per pizza. When this restaurant increased its price by 20%, its total revenue for the next month increased to \$13,440. As a result of this price increase, however, the monthly sales of pop decreased from 3,500 cans to 3,000 cans. Using the arc elasticity method,

- find the price elasticity of demand for this restaurant’s pizza; and (5 marks)
- find the cross-elasticity of demand for pop with respect to the price of pizzas. Comment on your result. (5 marks)

B4 Comparative versus Absolute Advantage

Consider a two good, two-country model where the productivity of labour is given as the following:

	<u>Argentina</u>	<u>Brazil</u>
<u>Output per worker</u>		
Wheat	3	2
Autos	1	2
Total Labour Supply	12	12

- a) Illustrate the production possibility curve for each country. (2 marks)
- b) Who has the absolute advantage in wheat? Autos? (1 mark)
- c) Who has the comparative advantage in wheat? Autos? (1 mark)
- d) What are the upper and lower limits of the possible exchange rate (expressed as # wheat / 1 automobile)? (3 marks)
- e) Select an exchange rate that would lead to mutually beneficial trade and illustrate this on each production possibility curve. (3 marks)