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ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Mid-Semester Examination
Course No. : BTM 4203
Course Title : Microeconomics

Summer Semester, A. Y. 2022-2023
Time : 1.5 hours
Full Marks : 75

Answer all 3 (three) questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

1. a) Imagine a society that produces military goods and consumer goods, which we will call "guns" and "butter." 15 (CO1)
(PO1)
 - I. Draw a production possibilities frontier for guns and butter. Using the concept of opportunity cost, explain why it most likely has a bowed-out shape.
 - II. Show a point that is impossible for the economy to achieve. Show a point that is feasible but inefficient.
 - III. Imagine that society has two political parties, called the Hawks (who want a strong military) and the Doves (who want a smaller military). Show a point on your production possibilities frontier that the Hawks might choose and a point that the Doves might choose.
 - IV. Imagine that an aggressive neighboring country reduces the size of its military. As a result, both the Hawks and the Doves reduce their desired production of guns by the same amount. Which party would get the bigger "peace dividend," measured by the increase in butter production? Explain.

- b) The first principle of economics discussed in Chapter 1 is that people face trade-offs. Use a production possibilities frontier to illustrate society's trade-off between two "goods"- a clean environment and the quantity of industrial output. What do you suppose determines the shape and position of the frontier? Show what happens to the frontier if engineers develop a new way of producing electricity that emits fewer pollutants. 05 (CO2)
(PO1)

- c) Classify each of the following statements as positive or normative. Explain. 05 (CO1)
(PO1)
 - I. Society faces a short-run trade-off between inflation and unemployment.
 - II. A reduction in the rate of money growth will reduce the rate of inflation.
 - III. The Federal Reserve should reduce the rate of money growth.
 - IV. Society ought to require welfare recipients to look for jobs.
 - V. Lower tax rates encourage more work and more saving.

2. a) Does a change in producers' technology lead to a movement along the supply curve or to a shift in the supply curve? Does a change in price lead to a movement along the supply curve or to a shift in the supply curve? 05 (CO2)
(PO1)

- b) Beer and pizza are complements because they are often enjoyed together. When the price of beer rises, what happens to quantity supplied, quantity demanded, and price in the market for pizza? 05 (CO2) (PO1)
- c) Mike's income declines, and as a result, he buys more pumpkin juice. Is pumpkin juice an inferior or a normal good? What happens to Mike's demand curve for pumpkin juice? 05 (CO2) (PO1)
- d) The market for pizza has the following demand and supply schedules: 10 (CO2) (PO1)

Price	Quantity Demanded	Quantity Supplied
\$4	135 Pizzas	26 Pizzas
\$5	104	53
\$6	81	81
\$7	68	98
\$8	53	110
\$9	39	121

- I. Graph the demand and supply curves. What are the equilibrium price and quantity in this market?
- II. If the actual price in this market were above the equilibrium price, what would drive the market toward equilibrium? And if the actual price in this market were below the equilibrium price, what would drive the market toward equilibrium?
3. a) A price change causes the quantity demanded of a good to decrease by 30 percent, while the total revenue of that good increases by 15 percent. Is the demand curve elastic or inelastic? Explain. 05 (CO2) (PO1)
- b) You are the manager of a museum. The museum is running short of funds, so you have decided to increase revenue. Should you increase or decrease the price of admission? Explain 05 (CO2) (PO1)
- c) Suppose that business travelers and vacationers have the following demand for airline tickets from New York to Boston: 15 (CO2) (PO1)

Price	Quantity Demanded (Business Travelers)	Quantity Demanded (Vacationers)
\$150	2100 Tickets	1000 Tickets
\$200	2000	800
\$250	1900	600
\$300	1800	400

- I. As the price of tickets rises from \$200 to \$250, what is the price elasticity of demand for (i) business travelers and (ii) vacationers? (Use the midpoint method in your calculations.)
- II. Why might vacationers have a different elasticity from business travelers?