

The LNM Institute of Information Technology

Department of HSS

Economics for Engineers HSS 201

Mid Term Exam

Time: 90 minutes

Date: 29/07/2017

Max. Marks: 30

Instructions: Attempt the paper in sequence and answer new question on a new page. Give examples and draw diagrams wherever necessary. No partial credits. Marks will be deducted for rewriting or change of response in the answers. Write the paper legibly and neatly. NO clarifications will be entertained. Apply your own discretion based on the class room discussion.

1. Are the following statements **Positive** or **Normative**? (Indicate in capital letters): [1x2=2]
 - a. Higher interest rates cause people to save more.
 - b. Technical change is a bad thing because it puts some people out of work.
2. A. Which of the following events is the least likely to shift a society's PPF outward? (Only indicate the choice) [2]
 - a. Discovery of natural gas.
 - b. Training for workers that increases the amount of a good that can be produced per worker.
 - c. A shift in preference for one good compared to the other good.
 - d. Invention of a new process of production that reduces the resources necessary to produce a good.
- B. Country X's economy produces fewer capital goods and more consumer goods than Country Z's economy. Which country's economy will experience more rapid growth? Draw two different production possibilities curves demonstrating your answer. [2]
- C. If a production possibilities curve between DVD players and mp3 players exists, how does a technological advance that increases the efficiency of mp3 player production affect the PPF? Draw and explain your answer. [2]
3. Consider the demand for hamburgers. If the price of a substitute good (for example, hot dogs) increases and the price of a complement good (for example, hamburger buns) increases, what will happen to the demand for hamburgers? Why or why not? Illustrate your answer with a graph. [4]

OR

The average annual income rises from \$25,000 to \$38,000, and the quantity of bread consumed in a year by the average person falls from 30 loaves to 22 loaves. Show along with the diagram what is the income elasticity of bread consumption? Is bread a normal or an inferior good?

4. "If a given society had no economic problem, then no commodity in that society would have a price." Assume that the statement is correct. Explain it, making clear your understanding of what the basic economic problem is and its types with examples [4]

OR

Discuss the company type of business organisation in Private and Government sector with examples.

5. In an analysis of the market for paint, an economist discovers the facts listed below. State with diagram whether each of these changes will affect supply or demand, and in what direction. [4]
- a. The hailstorms damaged several factories that make paint, forcing them to close down for several months.
 - b. There have recently been some important cost-saving inventions in the technology for making paint.
 - c. Paint is lasting longer, so that property owners need not repaint as often.
 - d. Because of severe hailstorms, many people need to repaint now.

Use the following table/template exactly in the answer book to show your answer –

S.No.	Name of the curve	Shift direction

OR

During a discussion several years ago on building a pipeline to Alaska to carry natural gas, the U.S. Senate passed a bill stipulating that there should be a guaranteed minimum price for the natural gas that would be carried through the pipeline. The thinking behind the bill was that if private firms had a guaranteed price for their natural gas, they would be more willing to drill for gas and to pay to build the pipeline.

Define floor price. Using the demand and supply framework, predict the effects of this floor price on the price, quantity demanded, and quantity supplied.

Use the following table/template exactly in the answer book to show your answer –

Effect on price	Effect on quantity demanded	Effect on quantity supplied

6. Suppose you are in charge of sales at a pharmaceutical company, and your firm has a new drug that causes bald men to grow hair. Assume that the company wants to earn as much revenue as possible from this drug.

If the elasticity of demand for your company's product at the current price is 1.4, would you advise the company to raise the price, lower the price, or to keep the price the same? What if the elasticity were 0.6? What if it were 1? Explain your answer. [5]

OR

What is the difference between the change in supply and the quantity supplied of a product, say milk? Explain in words and show the difference on a graph with the supply curve for milk.

7. Consider a corn farmer with one acre of land. In addition to land, other factors include quantity of seeds, fertilizer, water, and labor. Assume the farmer has already decided how much seed, water, and labor he will be using this season. He is still deciding on how much fertilizer to use. As he increases the amount of fertilizer, the output of corn will increase. It may also reach a point where the output actually begins to decrease since too much fertilizer can become poisonous.

Is the above example is related with the law of diminishing returns or law of returns to scale? Explain with diagram. [5]
