**Tutorial questions from Chapters 1 to 5 of Mankiw**

**Chapter 2: Thinking like an Economist**

1. Draw a circular-flow diagram. Identify the parts of the model that correspond to the flow of goods and services and the flow of rupees for each of the following activities.
   * Sachin pays a storekeeper Rs.90 for a litre of milk.
   * Mithali Raj earns Rs. 450 per hour working at Decathlon.
   * Paes spends Rs. 150 per hour for swimming.
   * Saina earns Rs. 1, 20,000 from her ownership of Badminton Academy.
2. Suppose India produces only grenades and wheat (military goods and consumer goods).
   * Draw the production possibility frontier for India. What would be the shape of the PPF if India’s cost of producing an additional unit of wheat was constant throughout? How will the shape of the PPF change if India’s cost of producing wheat was progressively increasing?
   * One of India’s borders is attacked from outside and India has to expand its production of military goods. Show a point on the PPF where this can be attained.
   * If the defence scientists develop a technology by which the grenades can be produced cheaper, will India’s PPF look different from the one prior to invention?
3. Classify each statement below as positive and normative economics.

* There is a short run trade-off between the rate of unemployment and the rate of inflation.
* RBI increases the Cash Reserve Ratio and people’s demand have gone down.
* The Government of India should reduce the oil prices.
* Society ought to require welfare recipients to look for jobs.
* Lower tax rates encourage more work and more saving.

1. Classify each statement below as microeconomics and macroeconomics.
   * Anusha decides to save Rs. 1000 every month.
   * Tamil Nadu government announces that all automobiles should use CNG engines.
   * The RBI reduces Cash Reserve Ratio by 0.5 basis points.
   * Reliance hires more engineers in Jamnagar refinery.
   * India’s GDP is increasing as the country exports more.
2. Draw a circular-flow diagram. Identify the parts of the model that correspond to the flow of goods and services and the flow of factors of production for each of the following activities.
   * Reliance hires more engineers in Jamnagar refinery.
   * Haldiram sells 1.5 Crores Moong Dal packets of a new variety.
   * Engineering graduate from IIT Madras placed in various companies.
   * Anirudh and Raghuram are at the market buying cotton shirts for summer.

**Chapter 3: Interdependence and Gains from Trade**

1. Jyothi can read 20 pages of Economics in an hour. She can also read 50 pages of Engineering in an hour. She spends 9 hours per day studying.

* Draw Jyothi’s production possibilities frontier for reading Economics and Engineering.
* What is Jyothi’s opportunity cost of reading 100 pages of Engineering?

1. Answer the questions below from the table. The table shows the time (in days) required for Jayesh and Saiharan to produce 1 aeroplane and 1 unit of electronics.

|  |  |  |
| --- | --- | --- |
|  | Jayesh | Saiharan |
| Aeroplane | 2 | 8 |
| Electronics | 7 | 4 |

* Who has an absolute advantage in making aeroplanes and electronics?
* Who has an absolute disadvantage in making aeroplanes and electronics?
* Who should specialize in the production of which all commodities?

1. Suppose, now Saiharan joins Harshita in making aeroplanes and electronics and their table is given below.

|  |  |  |
| --- | --- | --- |
|  | Harshita | Saiharan |
| Aeroplane | 3 | 8 |
| Electronics | 2 | 4 |

* Who has an absolute advantage in making aeroplanes and electronics?
* Who has an absolute disadvantage in making aeroplanes and electronics?
* Who has a comparative advantage in making aeroplanes and electronics?
* Who has a comparative disadvantage in making aeroplanes and electronics?
* Who should specialize in the production of aeroplanes and electronics?

1. Below given is the output per hour of labour for Amul and Nestle for two commodities, milkmaid and chocolate.

|  |  |  |
| --- | --- | --- |
|  | Amul | Nestle |
| Milkmaid | 6 | 3 |
| Chocolate | 2 | 5 |

* Which firm has an absolute advantage in making milkmaid and chocolate?
* Who has an absolute disadvantage in making milkmaids and chocolate?
* Which firm should specialize in which commodity?

1. Suppose Nestle is now facing some made some issues in the production technology in their production units which altered the table into the following.

|  |  |  |
| --- | --- | --- |
|  | Amul | Nestle |
| Milkmaid | 6 | 1 |
| Chocolate | 2 | 2 |

* How do you find the new table and the table from question 9 different?
* Who should produce milkmaid and why?
* Who should produce chocolate and why?
* What is the range of prices within which beneficial trade takes place?

1. A German worker takes 400 hours to produce a car and 2 hours to produce a case of wine. A French worker takes 600 hours to produce a car and X hours to produce a case of wine.

* For what values of X will gains from trade be possible? Explain.
* For what values of X will Germany export cars and import wine? Explain.

**Chapter 4: The Market Forces of Demand and Supply**

1. Draw the appropriate demand and supply diagram from the schedule given below and identify the equilibrium price and quantity. Label all important points. Use the diagram to answer the questions followed.

|  |  |  |
| --- | --- | --- |
| Fuel Price(Rs./Litre) | Quantity demanded | Quantity supplied |
| 100 | 800 | 500 |
| 120 | 700 | 550 |
| 140 | 600 | 600 |
| 160 | 550 | 640 |
| 180 | 500 | 680 |
| 200 | 460 | 700 |
| 220 | 420 | 720 |

* If the equilibrium price increased by another 20 rupees, what will happen to the quantity demanded and supplied? What is this situation called?
* If the equilibrium price decreased by another 20 rupees, what will happen to the quantity demanded and supplied? What is this situation called?
* If the government passes a law stating that the maximum price of fuel is Rs.120/litre, what all changes will happen in the market equilibrium?

**Chapter 5: Elasticity and its Application**

1. Infer the nature of elasticity of the commodities mentioned in the following situations, and justify the nature.

* The price of Ola Autos is increasing and demand is declining.
* The price of air cooler/conditioner is increasing in the summer but the consumption of air conditioner is not declining by the same proportion
* The price of hired means of transport is increasing while the demand is declining drastically.
* The rental price in a residential colony increased from Rs. 15,000 in 2019 to Rs. 25,000 in 2021. A handful of residents have shifted elsewhere in a week’s time. In the next year (2022), nearly 80 percent of the residents left the colony.

1. Indian domestic air travel in business class has an estimated elasticity of demand of 0.40 less than transatlantic air travel in economy class, with an estimated price elasticity of 0.62. Why do you think this is the case? (Hint: connect it to the rules of thumb).
2. Assume that an apartment rents for Rs. 21,000/- per month and at that price the demand is 10,000 units. When the price increases to Rs. 25,000 per month, the demand is 8,000 units. By what percentage does apartment demand and supply increase? What is the price elasticity of demand and supply?
3. The average annual income rises from Rs25,00 to Rs. 28,00, and the quantity of bread consumed in a year by the average person falls from 30 loaves to 22 loaves. What is the income elasticity of bread consumption? Is bread a normal or an inferior good?
4. Suppose the cross-price elasticity of apples with respect to the price of oranges is 0.4, and the price of oranges falls by 3%. What will happen to the demand for apples?