Principles of Economics
ECO 105
Credit 3

- Syllabus is divided as-
  - Microeconomics
  - Macroeconomics
  - Development economics

What is Economics?

economics is the study of scarcity

scarcity is the condition in which our wants are unlimited and resources are limited

so we need to make choices

in economics we study how individuals, firms, government make choices

economics is the study of choices

Example:

- Individuals may choose between buying chocolate or buying ice-cream
- Firms must choose how many labor to hire
- Govt. must choose what kind of policy measures be taken to prevent poverty

…………… dealing with scarcity and making the best utilization of resources.

So, we can define economics as-

Economics is the science that deals with the efficient use of scarce resources to achieve maximum satisfaction of economic wants

Branches of Economics

- **Microeconomics:** The branch of economics that deals with human behavior and choices as they relate relatively small units- an individual, a firm, a single market
- **Macroeconomics:** The branch of economics that deals with human behavior and choices as they relate to aggregate market or the entire economy

Issues for instance-	
Microeconomics	**Macroeconomics**
Price of a single good	The price level
How does a change in tax rate affect individual consumption behavior?	How does a change in tax rate affect the whole economy?

Some definitions

- **Scarcity:** scarcity means that society has limited resources and therefore cannot produce all goods and services people wish to have [that is, the limited nature of society's resources]
- **Choice:** choice refers to the ability of a consumer/producer to decide which goods, services, or resources to purchase or provide from a range of possible alternatives
- **Trade-off:** All other alternatives that we give up when making a choice
- **Opportunity-cost:** the most desirable alternative which is given up when making a choice

- Have a look of an example-

Mr. A is intending to expand his business. He has three alternatives-

1. hire more labor, or
2. buy a new capital equipment, or
3. start a new business branch

Due to resource constraint, he has to go for only one option. So, he has decided to hire more labor.

- Find-

scarcity,
choice,
trade-off and
opportunity cost

- **Ceteris Paribus:** means other things remain constant
- **Positive Economics:** it deals with the fact, what the actual happening

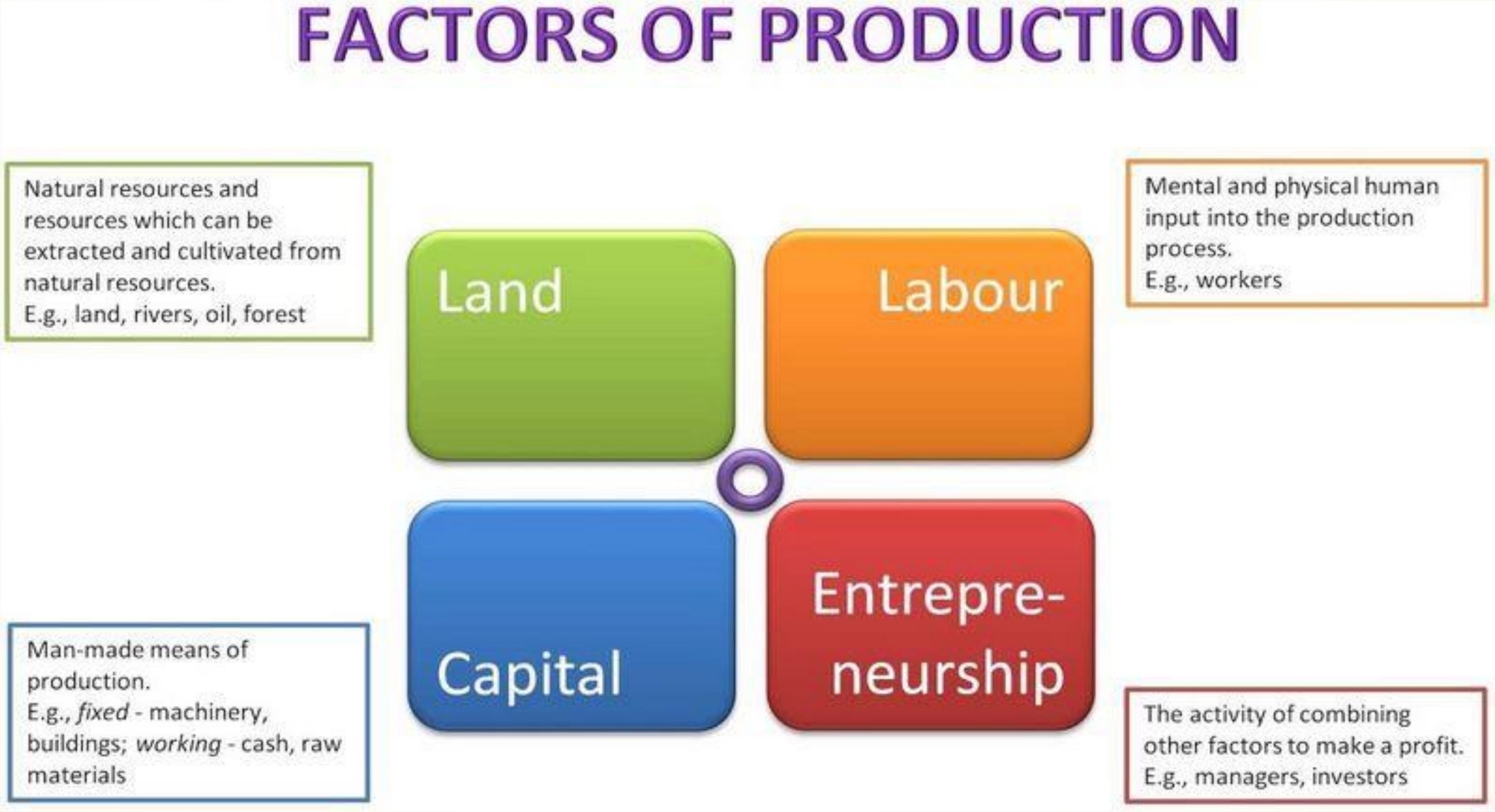
  Example:

  - world economy is slowed down due to Corona virus pandemic.
  - Bangladesh is a growing economy.
- **Normative Economics:** it deals with suggestions, what should happen or ought to be

  Example:

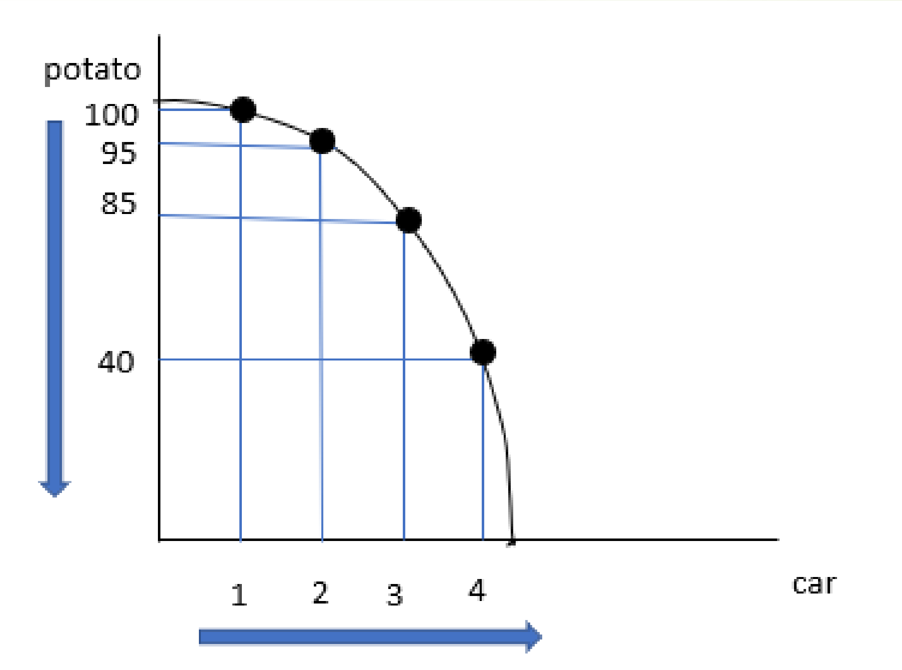
  - Strict measures should be taken to stop corruption.
  - Entrepreneurship should be encouraged to create employment.

- **Resources or Factors of Production** are the inputs available to produce goods and services. Factors of production are land, labor, capital and entrepreneur.



Production Possibility Frontier (PPF)

- A **production–possibility frontier** (**PPF**) is a curve which shows various combinations of the amounts of two goods which can be produced within the given resources and technology available at a certain point of time
- The **slope** of the PPF - the marginal rate of transformation (**MRT**)
- The slope defines the rate at which production of one good can be redirected into production of the other. It measures how much of one good is given up for one more unit of another good or vice versa
- It is also called the “opportunity cost”



PPF

- PPF with constant slope
- PPF with increasing slope
- Efficient and inefficient points of PPF
- Different regions of PPF
- Shifting of PPF

Production Possibility Frontier (PPF)

Draw a hypothetical PPF for an economy with Constant Opportunity Cost-

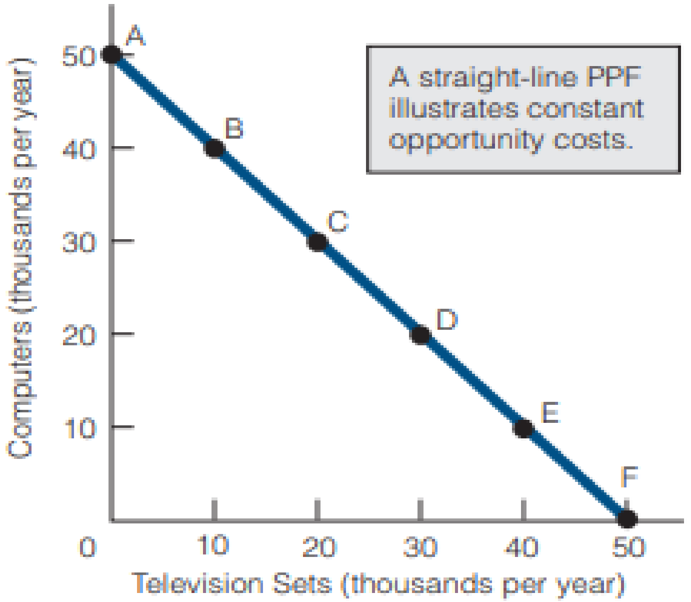
exhibit 1

Production Possibilities Frontier (Constant Opportunity Costs)

The economy can produce any of the six combinations of computers and television sets in part (a). We have plotted these combinations in part (b). The production possibilities frontier in part (b) is a straight line because the opportunity cost of producing either good is constant: for *every* 1 computer not produced, 1 television set is produced.

Combination	Computers	Television Sets	Point in Part (b)
A	50,000	0	A
B	40,000	10,000	B
C	30,000	20,000	C
D	20,000	30,000	D
E	10,000	40,000	E
F	0	50,000	F

(a)



(b)

Production Possibility Frontier (PPF)

Draw a hypothetical PPF for an economy with Increasing Opportunity Cost-

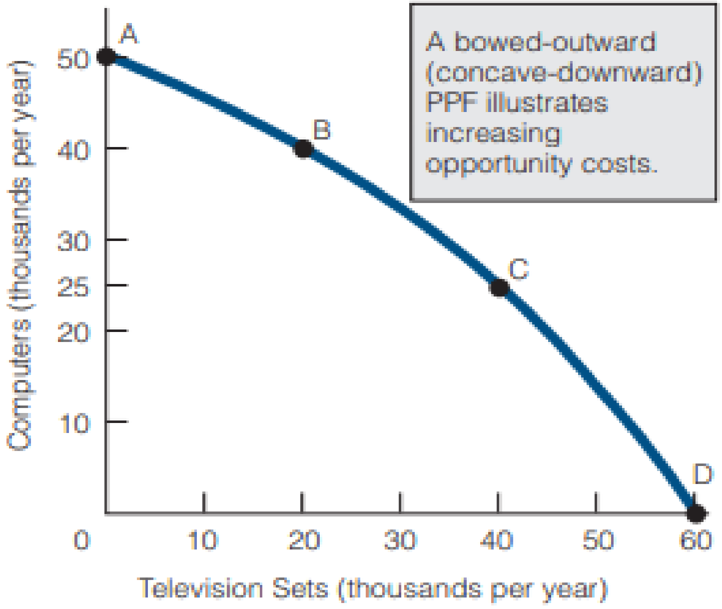
exhibit 2

Production Possibilities Frontier (Increasing Opportunity Costs)

The economy can produce any of the four combinations of computers and televisions sets in part (a). We have plotted these combinations in part (b). The production possibilities frontier in part (b) is bowed outward because the opportunity cost of producing television sets increases as more television sets are produced.

Combination	Computers	Television Sets	Point in Part (b)
A	50,000	0	A
B	40,000	20,000	B
C	25,000	40,000	C
D	0	60,000	D

(a)



(b)

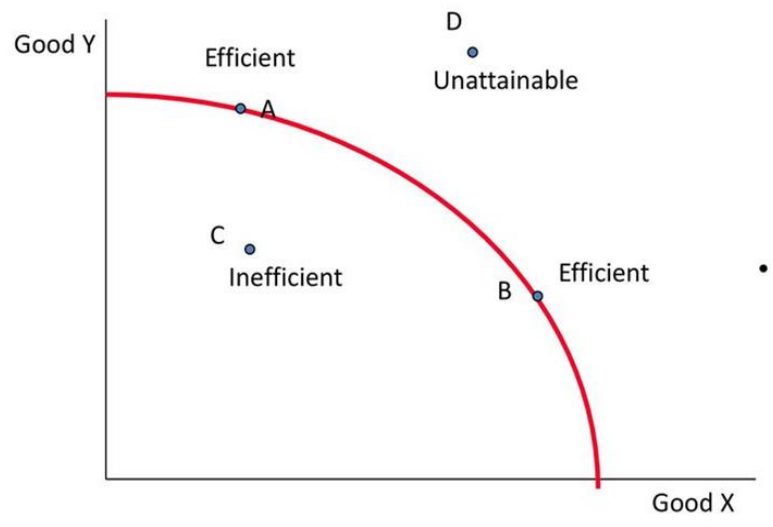
Efficiency and Inefficiency within the PPF

Economic Efficiency or Productive Efficiency: The condition where the maximum output is produced with given resources and technology. It implies one cannot be made better-off without making other worse-off. Each point on the PPF is efficient point.

Economic Inefficiency or Productive Inefficiency: The condition where less than the maximum output is produced with given resources and technology. Productive inefficiency implies that more of one good can be produced without any less of another good being produced. Each point below the PPF is inefficient point.

PPF

- **Different points of PPF**

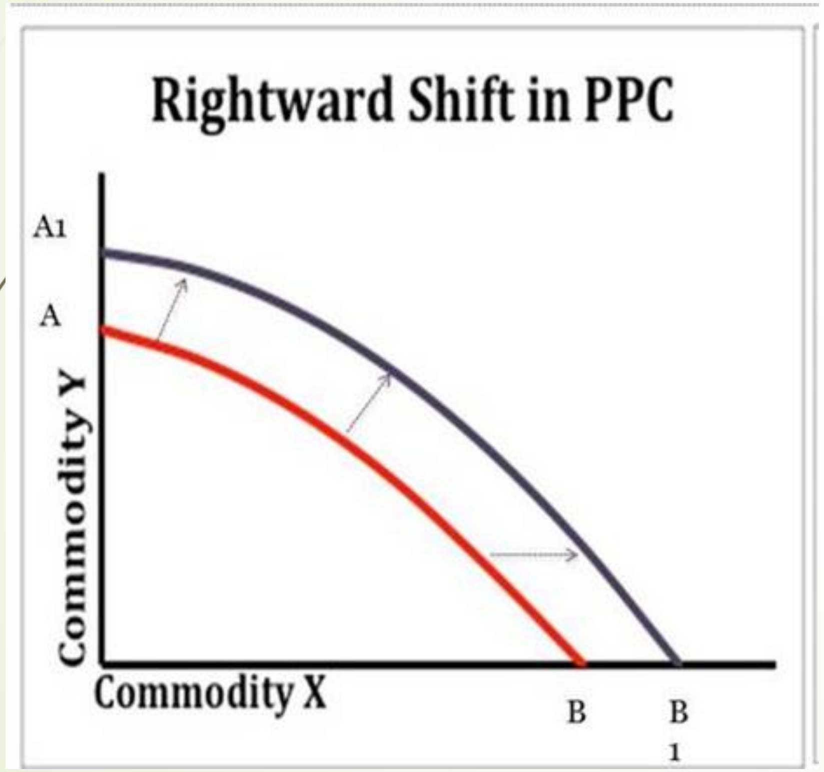


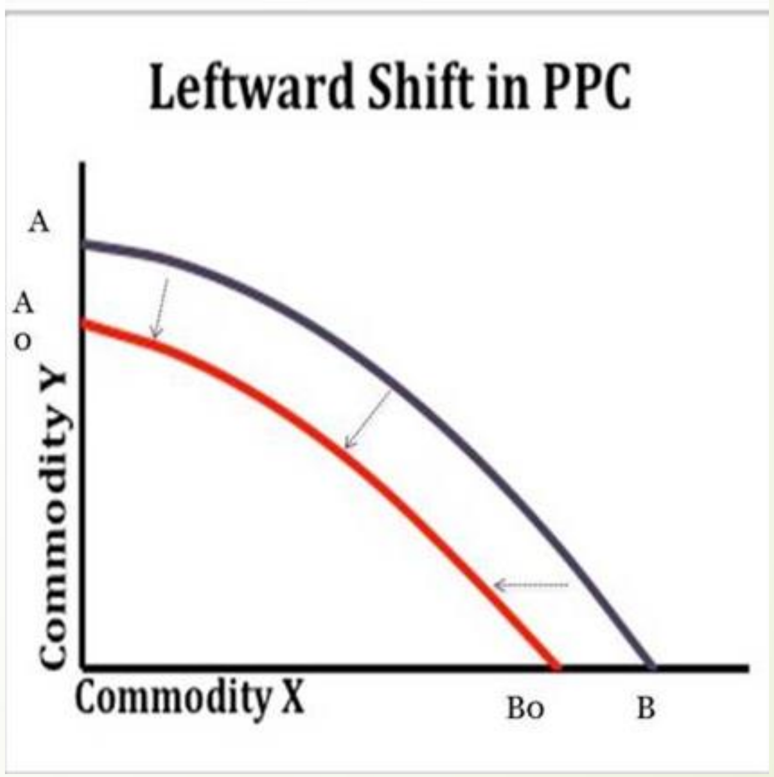
- According to the PPF points A and B - appearing on the curve – represent the most efficient use of resources by the economy.
- Point C represents an inefficient use of resources, while point D represents the goals that the economy can not attain with its present levels of resources.

Shifting of PPF:

Rightward shift- An increase in resources or an advancement in technology can increase the production capabilities of an economy, and thus PPF shifts to the right

Leftward shift- A decrease in resources or a degradation of technology can reduce the production capabilities of an economy, and thus PPF shifts to the left





- Self task-

  1.As a student of an engineering department why do you need to study economics?

  2. Distinguish between microeconomics and macroeconomics.

  3. Draw a Hypothetical PPF showing increasing opportunity costs.

  4. Define demand and supply.