Sangam S.K.M College- Nadi

Year 12

Economics Solutions

Strand One: Introduction to Economics

1. Production Possibility curves

It shows the maximum possible combination of two goods that can be produced with given level of resources and technology in a given period of time.

2. **Assumptions of a PPC**

All resources are fully employed
All resources are fixed in supply
Level of technology is fixed
All resources can be transferred from production of one good to other
Only 2 goods are produced

3.Concepts Illustrated by the PPC

1. **Scarcity** – PPC illustrates the idea of scarcity in the sense that either we can produce one commodity or the other or a combination of both but nothing more than the amount of resources available.(beyond the production possibility boundary)
2. **Choice** – given the alternatives we have to make a choice of what combination we can produce.
3. **Opportunity cost** refers to trade-off – in order to obtain more of one good, the economy has to forgo certain units of the other good because we cannot have more of the both goods.
4. **Law Of Diminishing Returns** – PPC also illustrates the law of diminishing i.e. at the top of the PPC where resources are allocated to produce capital goods, we say that the curve represents maximum output of capital goods at point A. And as resources are diverted away from point A, Output falls quite slowly reflecting the law of diminishing returns.
5. **Efficiency** – points of PPC illustrates concept of efficiency i.e. production efficiency and allocative efficiency.

4.a. Production Efficiency

-Producing maximum with the given level of resources.
-It is achieved when economy is operating on its PPF

b. Allocative Efficiency

-Is achieved when an economy is producing the unique combination of goods.
-It refers to the combination of goods that would maximize economic welfare

c. Marginal Rate of Transformation(MRT)
-Measures the extent of the sacrifice of moving from one point on PPC to another.

5.
(i)**Straight Line PPC**
Formed due to law of constant cost. -**Law of constant cost** states that as production of one good increases the opportunity cost of additional unit remains constant
(ii)**Concave PPC**
Formed due to law of increasing. -**Law of increasing opportunity** cost states that as production one good increases,the opportunity cost of producing additional unit also increases.

6. Points of the PPC show
1. Points A to E illustrates full employment of resources or full utilization of resources.
2. Point X-Points inside PPC refers to inefficient allocation of resources or unemployment of resources, under utilization of resources or some resources are lying idle.
3. Point Y-Points outside PPC is unattainable point with the given level of resources and technology. It could only be achieved through external trade or through economic growth.

7. Graph A
shows increase in production of both goods due to improvement in the quantity and quality of resource and technology
Graph B
shows increase in production of apples only due to improvement in the resources and technology used to produce apples
Graph C
shows increase in production of computer only due to introduction of modern technology
Graph D
shows movement from point inside PPC to point on the PPC. This illustrates increase in efficiency of resource use. This movement can be achieved without incurring any opportunity cost.

8. Calculation

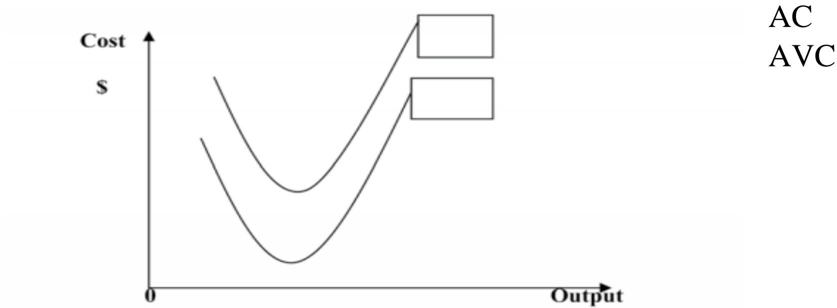
(i)Calculate the opportunity cost if the economy moved from Point E to B on the graph.
6 units of butter (18-12)

(ii)Calculate the MRT if the economy increased its butter production from 0 units to 12 units.

MRT = Gain: forgone
= 12:2
Answer = 0.167
The economy has to forgo 0.167 units of Gun for each additional unit of butter.

Strand 2 Microeconomics

1. Label the curves given below.



AC
AVC

2. (i) a. 6.0 f. 5.3
b. 11.0 g. 7.6
c. 30 h. 5.0
d. 38 i. 14
e. 5.5 j. 2

(ii).**Fixed cost-**cost that remains same for all levels of production.

Variable cost- cost that changes with the level of production.

3. **Productivity-** is output per unit of input.
-generally refers to the relationship between the volume of goods and services produced overtime and the volume of resources used in their production.

4.Fctors Affecting Productivity
1. **Technical factors**-connected with the practical use of machines
2. **Personnel factors**-people who work for an organization eg Human Resource
3. **Finance factors**—the activity of managing money
4. **Management factors**—the act of running and controlling business or similar organisation
5. **Government factors**-legal control of a country or people eg rules and regulations
6. **Location factors**-the position of a site
7.**Organisational factors**-to arrange for things to happen.
8.**Production factors**-process of making goods or service

5.**Law of Dimishing Returns -** States that as increasing quantities of a variable factor input are added to a fixed factor input, the additions to total output eventually begins to fall.

6. i. Which factor is fixed? Which is variable?

Land (farm) is fixed factor. **Labour** is variable

ii. What is the marginal product of 3rd worker?

3200 (5100-1900)

iii. What is total product of 7th worker?

12800(12000+800)

vi. Complete the Statement: ‘the law of diminishing returns sets in with the employment of the **6th** worker.

7.Definitions

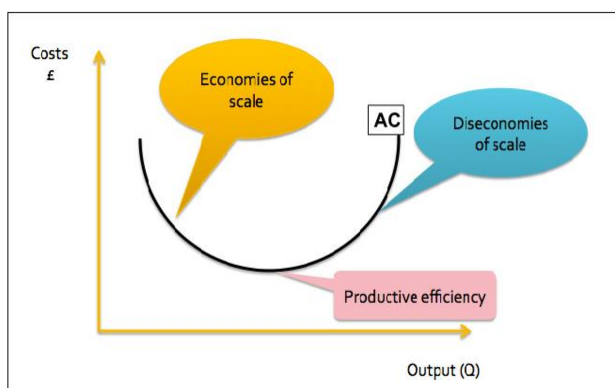
a. **Economies of Scale**- refer to reduction in per unit cost as output increases.

b. **Internal Economies** -reduction in per unit cost as the firm increases its plant size

c. **External Economies**- Reduction in per unit cost which occurs as a result of forces outside the control of the firm

d. **Diseconomies of scale-** refer to increase in per unit cost as output increases. It results when the firm starts to produce beyond the optimum plant size.

8. Graph of Economies and Diseconomies of Scale



Elasticity

1.Write down the formulas

Definition	Formula
1.Price Elasticity of Demand Measures the responsiveness of quantity demanded to a change in price	$\frac{\text{\% change in Qty demanded}}{\text{\% change in Price}}$
2.Income Elasticity of Demand Measures the responsiveness of quantity demanded of a commodity to a change in income	$\frac{\text{\% change in Qty Demanded}}{\text{\% change in income}}$
3.Cross Elasticity of Demand Measures the responsiveness of quantity demanded one commodity to a change in price of another commodity	$\frac{\text{\% change in Qty Demanded of Good A}}{\text{\% change in Qty Demanded of Good B}}$

2. **Fill in the blanks**

1.Elasticity;percentage

2.quantity demanded;price

3.downward;minus;positive

4.elastic;1

5.income;quantity demanded

3.Crossword

Across

3.inferior

6.substitutes

7.price

8.quantity

10.increases

11.normal

12.demand

Down

1.along

2.complementary

4.shift

5.future

9.decreases