Special Thanks to My Guru Shri Kapil Chabbra

Nothing in the world can take the place of Perseverance, Talent will not; Genius will not; Education will not;
Persistence and Determination alone are Omnipotent

Patience and strenuous effort will always be rewarded. ….

Arise Awake and Stop not, Till the Goal is reached. Swami VivekanandJi.

When nothing seems to help, I go & look at a stonecutter hammering away at his rock, perhaps a hundred times, with no crack showing in it. Yet, at the hundred – and – one blow it will split into two, and I know it was not that blow that did it but all that had gone before, Remember, Failure is not final – unit you make it final.

There is no stronger force known to mankind than for a human being to get down on his knees and ask God for Guidance **Stanley Arnold**
Genius is only the power of making continuous effort **Anonymous**

IMPORTANT POINTS FOR QUICK REVISION
Lesson - 1 Introduction to Micro Economics

1. Economic problem arises due to two reasons
(a) Unlimited wants (b) Scarce Resources
2. Economics is a science of **wealth - Adam Smith, JB Say**
3. Economics as a science of **Material well being** - Alfred **Marshal,** A.C. Pigou
4. Economics as a science of **Choice making - Robbins**.
5. Economics as a science of Dynamic growth and Development - Paul A. Samuelsem
6. Micro Economics is the study of **particular firm**, particular household, particular industry. Thus, it is a study of a particular unit rather than all the units combined eg. Theory of product pricing, Theory of consumer behavior
7. **Macro Economics** theory is that part of economics, which studies the **overall average**, and aggregate of the system such as **total production, total saving** etc.
Under macroeconomics we study
(a) Theory of National Income and output
(b) Theory of Employment
8. It should be noted that both micro and macro economics are **interdependent**
9. **Economics is both science and an art** - It is science in its methodology and art in its application
10. Economics as positive science - It states what is and not what ought to be. According to Robbin - Economics is neutral between ends. It does not pass value Judgement anyone with the limited money may use it for buying tobacco and not peanuts.
11. Economics as **normative science** - It refers to what ought to be. It makes an assessment of an activity and offers advice. It is based on **welfare economics** for e.g. changing the level of interest rates is a better way of managing the economy than using taxation and government expenditure.
12**. Deductive method** of study of Economics is the process of reasoning from **general to particular**. This method is also called abstract, hypothetical or a priori because it is based on abstract reasoning and not actual facts.
13**. Inductive method** of Reasoning from **particular to general** or from individual to the universal
14. Mainly there are 3 central Economic problems
(a) What do produce (b) How to produce (c) For whom to produce
15. Production possibility curve may be defined as a curve, which shows the various combinations of two goods that can be produced in any economy with a given amount of

resources and technology. **PPC is also known __as production possibility frontier and transformation curve__**
16 All points on PPC curve show that goods and service are produced **at least cost and no resource is wasted and the economy is productively efficient.**
17. **Trade off** refers to **movement from one alternative to other alternative on the PPC curve**
18. Shifting of PPC curve to right indicates Economic growth.

- Economics is both science and art. It **is science in its methodology and art in its application**.
- Professor Robbin emphasized the positive aspects of science but marshal and pigou have considered the ethical aspects of science which are normative
- Economics is neutral between ends is said by robbins
- **Opportunity cost** of a given activity is defined as the value of the __next best activity__. **If opportunity cost were constant, PPC would be a straight line.**
- In capitalist economics there is wide gap of income between the rich and the poor.
- Micro economics theory is a branch of economics that __deals with the problem of allocation of resources__
- Labour intensive techniques would get chosen in a labour surplus economy.
- The **fundamental premise of Economics is "Individual choose the alternative for which they believe the net gains to be the greatest**.

The concave shape of PPC is due to increase in opportunity cost.
Adam Smith is known as father of economics.
In a free market economy the allocation of resources is determined by consumer preference.

Lesson - 2

1. Demand refers to the quantity of a good or service that consumers are willing and able to purchase at various prices.
2. **Determinants of Demand** are
(a) Price of the commodity (b) price of related commodities (c) Income of the households (d) Taste and preference (e) other factors
3. When there is equitable distribution of Income, then APC will rise. When there is inequitable distribution of Income , there APC will fall.
4. Demand and price have inverse relationship or demand and price has negative relationship
5. Demand curve slopes downward to the right due to following factors
(a) Substitution Effect (b) Income effect (c) number of consumers
6. Exception to the law of demand, Incase of exception there is __POSITIVE relationship between demand and price__ ie when price rises demand rises e.g. Conspicuous goods, giffen, goods impulsive purchases etc.
7**. Conspicuous goods are those goods in which consumer measure the utility of a __commodity by its price__. ie if commodity is expensive they think it has got more utility e.g. diamonds etc.**
8. Factor affecting elasticity of demand
(a) Availability of substitutes - more the substitutes higher the elasticity and vice versa.
(b) Position of a commodity in the consumer budget - Greater the proportion of income spent on a commodity the greater will be its elasticity of demand and vice versa.
(c) Nature of the commodity - luxury goods - Price elastic, while necessities are price inelastic
(d) Number of uses - More the possible uses of a commodity the greater will be its price elasticity and vice versa.
(e) **Tied Demand** - demand for those goods, which are tied to other, are normally **inelastic**.
(f) Price range - Goods which are in very **high price range** or in very low price range have **inelastic demand**.
9. Expansion and contraction in demand / movement (change in QUANTITY Demanded). When due to price change demand changes.
10. Increase and Decrease in Demand / shifting (change in demand) when due to change in factors __other than price__ demand changes.
11. Movement is also called change in quantity demanded and which includes expansion and contraction of demand shifting is also called change in demand, which includes increase and decrease in demand.

12. When two goods are **perfect substitutes** of each other the indifference curve is a straight line on which MRS is constant. When two goods are **perfect complementary goods**, the indifference curve will consist of two straight lines with a right angle bent or it **will be L shaped.**
13. **Elasticity of Demand** - It is the percentage change in quantity demanded divided by the percentage change is one of the variables on which demand depends. Types of an elasticity of demand.
(a) Price of elasticity of Demand (b) Income elasticity of Demand (c) cross elasticity of Demand
14. In economics elastic demand / supply means **elasticity is greater than 1.**
15. In Economics Inelastic demand/ supply means means **elasticity is less than** 1.
16. When Ed = o or Ed = ∞ , it is always mentioned perfectly inelastic demand or perfectly elastic of demand
17. Various methods to measure elasticity of demand.
(a) Total outlay method (b) Point Elasticity (c) ARC Elasticity
18. In total outlay method
If E = 1; price change ↑ or ↓ , No change in total Expenditure
If E < 1; Price change ↑ then total Expenditure ↑ and vice versa
If E > 1; Price change ↑ then total Expenditure ↓ and vice versa
19. Point elasticity method is used when *price change* is **some what very smaller.**
20. When price change in somewhat larger, then we have to measure elasticity over an arc on the demand curve i.e we will use arc method.
21. Types of Income elasticity
(a) Positive Ey ie > o - Incase of Normal/ Luxury goods
(b) Negative Ey ie < o - Incase of inferior goods
(c) Zero Ey ie Ey = o - Incase of necessaries goods.
22. Types of cross Elasticity
(a) Positive Elasticity - Incase of substitutes goods like Tea and Coffee
(b) Negative Elasticity - Incase of complimentary goods like car and petrol
23. **In solving all numerical in CPT regarding price elasticity Income elasticity or cross elasticity always use Arc method**
24. **Utility** may be defined as the satisfaction derived from the consumption of a good.
25. When TU is maximum, then Mu is zero, then is also called saturation point.
26. Assumption of the MU analysis given by Alfred marshal
(a) Cardinal measurability of utility, (b) Constancy of the MU of the money (c) Hypothesis of independent utility (d) Rationality
27. According to cardinal utility concept utility of a commodity can be measured and compared in numerical terms like 10,8,6,4 etc According to ordinal utility concept, the utility derived from the consumption of goods can not be measured, it can only be ranked.
28. **Consumer surplus** is a concept based on **law of Diminishing MU given by marshal**
CS = what consumer is **ready to pay**-what **he actually pays**
29. Indifference curve Analysis is based on ordinal concept given by Hicks and Allen . An IC is a curve, which represent all those combination of two goods, which give same satisfaction to the consumer
(a) An IC slope downward to the right (because to increase quantity of one commodity quantity of other commodity must decrease)
(b) An IC is always convex to the origin (due to fall MRS of goods. This is based on diminishing marginal rate of substitution
(d) An higher IC represents higher level of satisfaction than lower IC.
30. Marginal rate of substitution is the rate of which consumer is prepared to exchange two goods
31. **Budget line / price line represent** all those combination of two goods which the consumer can buy spending his given money income on the two goods at their given prices
32. Consumer Equilibrium under IC Analysis- A consumer is in equilibrium when he is deriving **maximum possible satisfaction** from the goods and is in no position to change.
For consumer Equilibrium two conditions should be satisfied
(a) Price line must be tangent to the indifference curve

(b) MRS $_{xy}$ = MUX = PX

MUY PY

33**. Supply** is a FLOW Concept.**quantity demanded** is also a flow concept.

34. Determinants of supply (factor affecting supply)

(a) Price of the product (b) price of related product (c) Government policy (d) State of Technology (e) Future Expenditure about prices

35. Both supply schedule and curves have positive relationship between price and quantity supplied.

36. Expansion and contraction in supply/ movement (change in quantity supplied) when **due to Price change** supply changes

37. Increase and decrease in supply / shifting (change in supply) when due to **change in factors other than price** supply changes.

38. Two important points apply to supply:

(i) The supply refers to what firms offer for sale not necessarily what they succeed in selling.

(ii) Supply is a flow concept. The quantity supplied is so much per unit of time, per day, per week or per year

39. Measurement of supply elasticity

(a) Point elasticity: $E_s = \frac{dq}{Dp} \times \frac{p}{q}$

Where $\frac{dq}{Dp}$ is differentiation of the supply function

With respect to price and p and q refers to price and quantity respectively.

(b**) Arc- elasticity**: In measurement of arc elasticity, we use the average of the two prices and average of the two quantities figures.

$E_s = \frac{P_1 + P_2}{Q_1+Q_2} \times \frac{\Delta Q}{\Delta P}$

40. Contraction of demand is the result of increase in the price of the good concerned.

41. In the case of a straight-line demand curve meeting the two axes, the price - elasticity of demand at the mid-point of the line would be equal to 1.

43. In case of an inferior good, the income elasticity of demand is negative.

44. The law of demand is a **qualitative statement**

45. If a good is a luxury, its income elasticity of demand is positive and greater than 1.

46. In case of giffen goods the demand curve will be upward sloping right

47. Demand for a thing depends upon three things

(a) Desire (b) Means to purchase (c) willingness to use those means for that purchase

48.**Certeris paribus means other things being equal**

49.Substitute goods are also known as **competing goods**.

50.When price of a commodity falls, consumer's real income or purchasing power increases. This increase in the real income induces him to buy more of that commodity. This is called income effect.

51.If two goods are perfect substitute for each other **cross elasticity is infinite and if the goods are totally unrelated, cross elasticity between then is zero.**

52.Utility is the **want satisfying power** of the commodity. It is a **subjective entity** and varies from person to person.

53.The diminishing marginal utility curve applies almost to all commodities. A few exception are money, music, hobbies etc.

54.Alfred Marshall evolved the concept of **consumer surplus**.

55.Indifference curve approach to consumer behavior is based on consumer preferences

56.As per IC approach, a consumer is in equilibrium when he is deriving maximum possible satisfaction from the goods.

Lesson - 3

1. In economics production is any economic activity, which is directed to the satisfaction of the wants of the people

2. Methods of production (Creation of Utility)

(a) Form utility (changing RM to finished products)

(b) Place utility: (Changing place where they are of little or no use to another place where they are of greater use)

(c) Time utility - making materials available at all times
(d) Personal utility: Making use of personal skills in the form of services of CA, Doctors etc.
3. In economics, land does not means soil or earth surface alone but refers to all free gift of nature like air , water, lighting mines etc.
4. Labour is a physical or mental effort of human being in the process of production for economic purpose.
5. The supply curve of the labour is backward bending
6. Capital is that part of wealth of an individual or community which is used for further production of wealth .capital is a stock concept Income is a flow concept
7. Capital formation means a sustained increase in the stock of real capital in a country. In other words capital formation includes production of more capital goods like machines, tools, factors, transport equipment electricity etc. Which are all used for further production of goods. Capital formation is also known as Investment.
8. There are 3 stage of capital formation
(a) Saving (b) Mobilization of saving (c) Investment
9. Functions of entrepreneurs - (a) Initiating a business enterprises (b) Risk bearing (c) Innovations
10. Production Function states the relationship between input and outputs
11. According to law of variable proportion, as more and more units of a variable factor are combined with same quantity of fixed factor, total product first increase at an increasing rate, then of a diminishing rate and finally starts falling. It is a short run concept.
12. In the long run all factor input in the production functions can be changed. The behaviour of output consequent to change in the quantities of All factor input in the SAME proportion is known as return to scale. Returns to scale may be of three types-
(a) Increasing return to scale - Input ↑ by 100% and output ↑ by greater than 100%
(b) Constant returns to scale - Input ↑ by 100% and output ↑ by 100%
(c) Diminishing return to scale - Input ↑ by 100% and output ↑ by less than 100%.
13. Economies of scale refer to the advantages available to the firm as it expands production.
14. Diseconomies of scale refer to the disadvantage available to the firm as it expands production.
15. Internal economies of scale are **firm specific** i.e. available only to those firms, which seeks to increase its level of output.
16. External economies are those economies, which are available to **all the firms in the industry**.
17. Accounting cost / outlay cost/ Explicit cost relate to those cost, which involve cash payments by the entrepreneur.
18. Implicit cost/ Non Accounting cost refers to cost of factors owned by the entrepreneur himself and employed in his own business e.g. Rent of **self owned** building, Interest on **self** owned capital
19. Economic Cost = Accounting cost + Implicit cost (Non Accounting Cost)
20. Economic profit = Total Revenue - Economic cost
21. Accounting profit =Total Revenue - Accounting cost (Explicit cost)
22. **Opportunity cost** of factor refers to its value of its **next best alternative** use or **is the cost of forgone opportunity**.
23. In short run output can be increased or decreased by changing variable factor only but fixed factors cannot be varied.
24. Long run period is a period in which all factor can be varied. There is only variable cost, it does not have fixed cost. So law of returns to scale applies here. **In long run all input are variable, because cost that are fixed in the short run can be changed in the long run Accordingly, there are no TFC or AFC curves in the long run. There is no distinction between TC and TVC**
25. In long run the firm will produce the output at which SAC is minimum.
26. LAC (Long run Average cost curve) are often called a planning curve because a **firm plans** to produce any output in the long run by choosing a plant on the LAC curve corresponding to the given output.
27.

Return to scale	LAC	Economies/ Diseconomies

Increasing return to scale Constant return to scale Decreasing return to scale	LAC decrease LAC minimum LAC increase	Economies arise here - Diseconomies arise here

28. **The AP is maximum when AP = MP**

29. $MP = \dfrac{\text{Change in TP}}{\text{Change in unit of variable factor}}$
30. Diminishing marginal return implies increasing marginal cost.
31. To economist the main difference between the short run and the long run is that in the short run, **at least one** of the firm's input level is fixed
32. Variable cost increases continuously with the increase in production.
33. Long Run average cost curve is also known as planning curve or enveloping curve.
34. Marginal cost is closely related to variable cost
35. MC curve interest the AC curve at the least point of the AC:
36. When AC is greater than MC, then it implies MC curve is below AC curve.

37.Function of Entrepreneur is
(a) Initiating a business enterprise (b) Risk bearing and uncertainty. (c) Innovation.
38.Point of inflexon is that point on TP at which MP is maximum
39.Saturation point is that point at which TP is maximum and MP is zero.
40.Law of return to scale is applicable in long run, when all factor inputs can be changed.
41.As the firm expands production, it gets many advantages, known as economics of scale.
42.Diseconomies of scale refer to certain disadvantages available to the firm, when it expands production.
43.Internal economies are those economies, which are firm specific those are available to that particular firm in the industry, which seeks to increase its level of output.
44.External economies are those economies, which are industry specific.
45.The LAC curve helps the firm in the CHOICE of the size of the plant for producing a specific output at the least possible cost.

Lesson - 4 Markets
1. Equilibrium market price is prices, which market demand and market supply, are equal
2. If a firm is producing a level of output such that MR > MC, then **firm should increase output**.
3. Three essential condition of pure competition are (a) large number of buyers and sellers (b) Homogeneous products (c) Free entry and exit.
4. Two condition for equilibrium in **all market condition** are
(***a) MC = MR***
***(b) MC curve should cut MR curve* from below**.
5. With a given supply curve a decrease in demand causes an overall decrease in price and a decrease in equilibrium quantity.
6. Oligopolistic industries are characterized by a few dominant firm and substantial barriers to entry.
7. For a price taking firm (as in perfect competition) marginal revenue is equal to price
8. Monopolistic competition differs from perfect competition primarily because in monopolistic competition firms can differentiate their products
9. In all market forms firm earn maximum profit at the equilibrium level (when MC = MR.; MC curve cut MR curve from below)
10. All firm least cost output are at that point where AC curve is lowest.
11. AR curve = Demand curve

12. Discriminating monopoly implies that the monopolist charges different prices for his commodity from different consumers at different places for different uses.
13. The kinked demand hypothesis is designed to explain oligopoly price rigidity
14. A **firm encounters its '<u>shut down point'</u> <u>when AVC = >price</u>**
15 A purely competitive firm's supply schedule in the short run is determined by its marginal cost curve
16. When MC = AC, we know that firms must be producing at the minimum point of the average cost curve and so there will be productive efficiency.
17. **MR = AR** $\left[\frac{E-1}{E}\right]$**;** where E = price elasticity of demand; if E>1, MR will be positive; if E< 1MR will be negative
18. A firm should produce at all if TR from its product is equal to or exceeds its TVC
19. If increase or decrease in demand and supply both are equal, there will be no change in the equilibrium price, but equilibrium output would change in the direction in which supply and demand change
20 If increase in demand is more than increase in supply, equilibrium price will increase and output will increase.
21 If increase in supply is more than increase in demand equilibrium price will fall and output will increase.
22. When the firm just meets its average cost, it earns normal profits and **this normal profit is included in average cost**.
23. MC curve of the firm in perfect competition is the firm's supply curve. **In perfect competitions firm, MC curve above AVC is considered the supply curve of the firm, because when p < AVC then firm will not supply any output.**
24. **At Equilibrium level**
In perfect competition Price = MC = AR
In monopoly / monopolistic competition price > MC and price = AR
25.Pure or free competition has only **three** features
(a) Large number of buyers/ sellers (b) Homogeneous goods (c) Free entry and exit.
26.In perfect competition, consumers pay minimum possible price which just covers the marginal cost i.e. MC = AR; plants are used at full capacity in the long run, so that there is no wastage of resources i.e. MC = AC