(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 = $\frac{\text{Change in TP}}{\text{Change in unit of variable factor}}$

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 'shut down point' when AVC = >price**
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