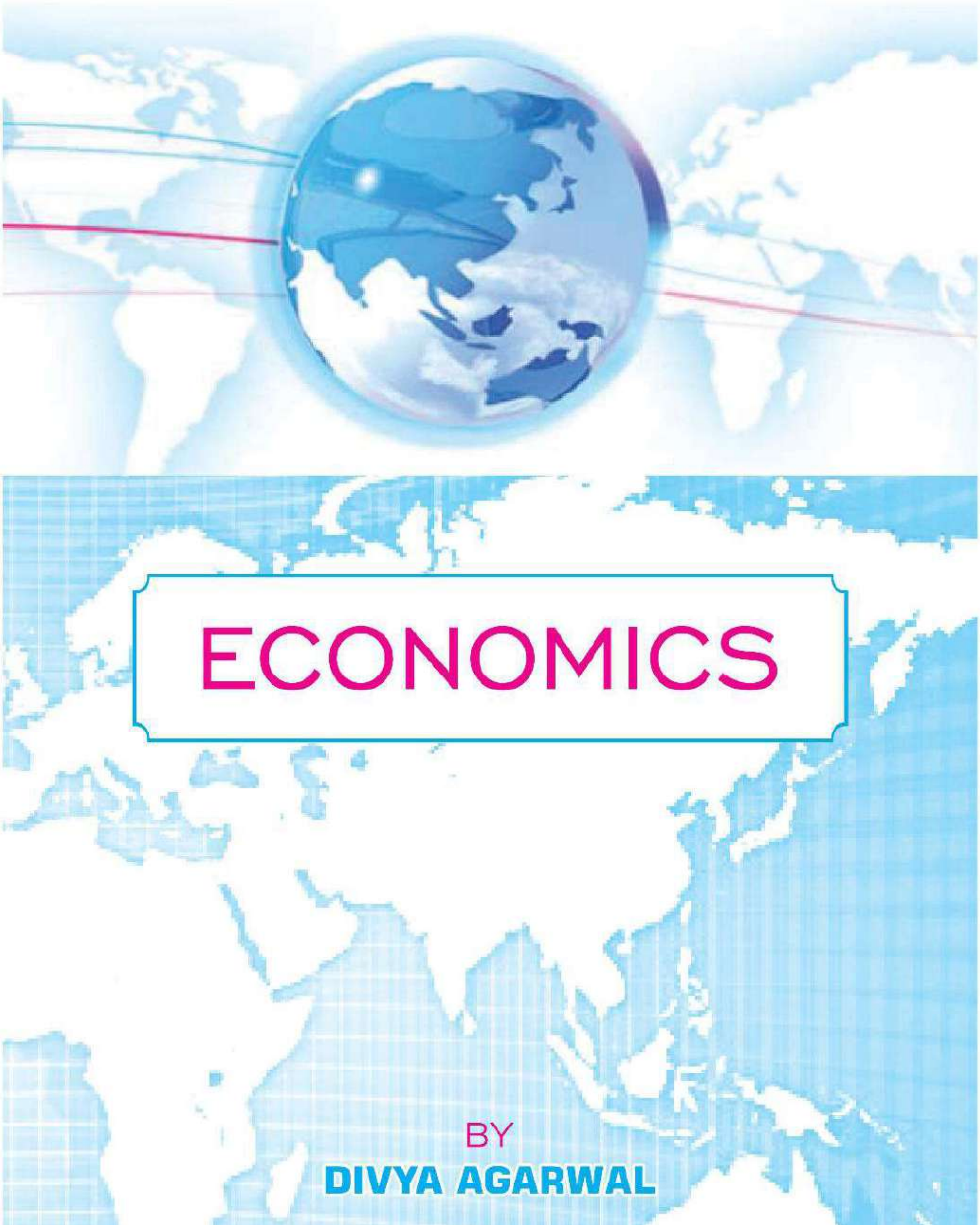
ECONOMICS
BY
DIVYA AGARWAL

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TESTIMONIAL

Mohit Sir is the best teacher for law and audit………Pankaj Ganeriwal

Fabulous teaching style….with FULL enthusiasm….I have ever seen……..Vipul Singh

Mohit Sir makes us understand the core of every section and provision.Some teachers run away from their responsibilities by asking students to learn themselves and make them only mark but this is not with our Mohit Sir.He puts huge efforts to make us understand learn in class itself thereby reducing our efforts at home............Rahul Agarwal

He makes us revise N no. Of times.Respect to your dedication and passion Sir.....Komal Jain

Best teaching in my life….the way of teaching is totally different from others…….Ronobijoy Paul

Best teacher ever for any subject of CS or CA!..He is the BEST!......Aritra Nag

I have never seen such a dedicated and hardworking mentor…I feel it was my life's best decision to study under his guidance……Madhuri Kumari

Sir, u saw something in me that I didn't see in myself….never forget this things u said to me..Thank u sir…Really you're d best……..Sanu Raj

Just…Unmatchable and MOHIT Sir is best and a GURU of many…..Ishith Agarwal

The best law nd audit teacher till date!!!!!.....his unique nd frank way of teaching draws ever1s full cncntratn in studies..!!!............Indranil Pal Choudhury

Mohit sir is a best teacher for law in entire world……..Lalit Soni

He is not only a teacher but also a god of law and audit…….Ranajoy Majhi

The way of teaching fabulous#####.. I no comparision with others## I just love it……..Kumar Uttam

Sir u jzt awsum..i enjoy ur way of teaching it's the bst way we can study…thanks a lott sir……Yukta Jaiswal

Great sir you are mind blowing teacher superb, your way to trying to understand is really outstanding………….Sriram Yadav

The best teacher I have ever seen….I just love the way of his teaching………Suchi Sourabh

I had saw only two videos nd its really amazing….So helpful….Jo topic aaj tak clear nai hue wo aaj yaad ho gaye… Thank you sir…..Sapna Vyas

Seriously no one is as good as Mohit sir……..he is such a inspiration for all of us……Sneha Shaw

Dear Sir, thanks for not making us learn the way you wanted to teach, but teaching us the way we wanted to learn…Mohit sir is the greatest……Megha Soni

Words are not real so 2 such a devotional and motivational teaching if anything can be done is 2 prove it correct once more by performing well…….Ankit Mishra

Mohit Sir is one of the best examples….of dedication, determination and hardwork…….that let others to follow him on the way to success…to be everything (rather whatever they want)….. from nothing…….Jeet Bhattacharya

I used to hear from people…The only way to understand a subject is to fall in love with the subject…..Mohit Agarwal sir is the man because of whom I m learning how to fall in love with my studies….#SAMJHE BESHARMOO#Respect…..Reeju Shastri

MOHIT SIR is the KING OF company law…The best teacher ever.. About any topic in law Mohit sir just nailed it I am glad to have a teacher like him..A lot of respect and love for him……… Kuntal Chakraborty

One of the guide in India for law……..before I don't like the law subject but now I love it……..thank you sir you are amazing……….David Bajrai

Best teacher ever……he is not only making professionals but the good human also……always motivating us…..feeling very lucky nd blessed that I got the opportunity to learn many things from him…!!!..........Nidhi Gupta

The best teacher ever I have never seen any teacher like him….. …I am Glad to have a teacher like him in my life….Annu Sinha

I have never seen such a passionate teacher in my life…….Thank u so much Mohit bhaiya for making SEBI such an interesting subject……U r da best teacher in my life! Ur teaching skills made me fall in love with the SEBI subject….!..........Srishti Saluja

I can't explain, mohit bhaiya is one of the best teacher in india, in india a lot of well qualified any experience teacher, but how to make any matter easy!!how any student can understand??this quality is only in mohit bhaiya………Anand Srivastav

If Sachin is God of cricket…Then Mohit Sir is the god of teaching…His unique teaching techniques are just outstanding……….Bhakt Agarwal

He is the best teacher I have ever seen before………Abhishek Singh

So far the best teacher I have ever seen…the way he speaks is just amazing……Kusum Sharma

The echoes of your phonation brings an eerie feeling of an irreplaceable void nd it's sets off a trail of reminiscence and retrospection for the magical and quintessentially blissful days spent in your ttion so far. You are a self complacent, felicitous speaker, with an everlasting air of halcyon atmosphere binding in with your eudemonic and corking nature. While it will take time to reach out to your pinnacle of dreams, be honorifacbilitudinitatibus. You have been indeed, supercalifragilisticexpialidocious. P. S. - best faculty ever .. Blissed to have u as my faculty ....Ayush Gupta

Mohit Bhaiya you are the best. You'r each classes is so awesome comprasing unique blend of teaching techniques that it makes each classes very interesting and enjoyable.

Also one will not think of banking your classes intentionally because it will make him/her feel guilty later."Thank you Mohit Bhaiya for your fruitful teaching" ....Rupesh Kumar

Privileged to be taught by Mohit sir at IPCC level. Every class of sir is as interesting as a Hollywood movie, be that law or accounts you never going to get bored ...... Abhishek Jha

Mohit Bhaiya is the best teacher in Kolkata. Best teacher for law. His technics of teaching are really very very good. And facilities are damn good which are provided here ...... Rohit Anand

I just loved the way of his teaching. What a dashing personality. OMG. Such a mind blowing teacher I have ever seen ...... Varsha Agarwal

His style of teaching makes us reduce our effort and stress n help us enjoy the class ...... Niraj Jha

The most innovative way of teaching, where you yourself cannot sit without studying. Theory papers become so interesting and colorful when taught by Mohit Sir. Love to b a part of Sir's classes ...... Shivam Seth

An innovative and energetic teacher can take you to your aim. Mohit bhaiya is that teacher ....Aakash Banka

Every student must have a teacher like Mohit sir. He is awesome & I really wish that I can follow him .... Jayanti Sukla

No one is better than Mohit bhaiya. I salute you bhaiya .... Amit Menon

Really Bhaiya, I have never seen a person like you. The way deliver your leacture went inside our without. When I was giving my IPCC exam I was just remmerbered your leacture and written the answer and ITSM. No words just followed your suggestion got 65 in ITSM. Ty bhaiya. May you live long and continue your with your teaching style .... Abhishek Jain

Thee best teacher in my life i.e. Mohit Bhaiya .... Ankush Pugalia

Best teacher ever. Learn the way of studying and motivate me for achieving success in life. Hats off Bhaiya. You are great... .... Shikha Ginodia

Mohit sir is now one of my best teacher. Can remember each topic after each class of his. No need to open for a day or so also. Thank you Bhaiya .... Anand Dubey

I like the way Mohit Bhaiya teaches and interact with their students. That is to say. He enjoy teaching students and very much committed to his profession. It's ver unorthodox way of teaching which make him different from other teachers. And the other thing that I liked the most was punctuality .... Aman Kumar Saha

Mohit sir is best faculty of India according to me. Sir we are blessed to have you as our guide right from the beginning .... Mohul Maitra

According to me it was never so easy to understand the subject before I met Mohit Sir .... Kumar Sanu Singh

Sir a student like me who was very much poor in law subjects came to know how interesting law subjects are, all because of a teacher like you. Thanks tou you sir for making these papers very much easier for me .... Munmun Saha Choudhury

Nobody can teach Law better than Mohit Sir .... Roshan Agarwal

This institute can fill any and every student with confident and enthusiasm .... Shiva Shukla

Transfers a lots of energies even you are in sleepy mood! trust me best teacher ever!... .... Boubani Chatterjee

Bhaiyaaa you are my only role model. I always need ever wish to become like you .... Govind Kr Jha

Sir I just seen your demo of video classes it was really awesome and I eagerly waiting to do your live classes ...... .Rohit Kumar Prasad

Sir me shantanu from guwahati.. .. Sir I was so much tensed how to pass in Capital market nd security laws ... btt after getting one of d best teacher in d world like you .... I m feeling like that I wil not only pass on that subject bt I wil pass with distintn ... thank u so much sir nd I want to meet u sir ... lov u sir nd wish ur all dreams wil em true ... god bless u sir ... we love u .... Santanu Das

Marvellous teacher I have ever met in my entire life. He puts tremendous effort n hard work to teach. Words would be less to describe him. Rather I would say, Mohit bhaiya you are the best. There is no one else who could just pass by your level of teaching. Best teacher of Audit, Law & Ethics and ITSM .... Riku Sarmah

Some dynamic ppl are born in the earth to make some innovation. I must say dat Mohit sir you are one ofthem .... Anchor Sitanshu Mishra

Star The best faculty for law and audit. And a super tallented person .... Rahul Tibrewal

Chapter 1

NATURE AND SCOPE OF BUSINESS ECONOMICS

The term economics originates from GREEK word 'OIKOMONIKOS'. OIKOS - means house and NOMOS means management or greek word OIKONOMIA meaning 'household'.

DEFINITION

(a) Science of wealth

(i) ADAM SMITH - defined economics as "economics is the science of wealth".

(ii) ADAM SMITH is known as **father** of economics.

(iii) Published book in **1776** known as **"an inquiry into the nature and causes of wealth of nation"**.

(iv) J. B. say - economics is a "science which deals with wealth".

(v) Criticism

(1) Exaggerated emphasis on wealth

(2) Too materialistic

(3) Neglect of welfare

(b) Science of material well - being

(i) Alfred Marshall defined "Economics is a study of man kind in the ordinary business of life".

(ii) A. C. Pigou - "The range of our enquiry becomes restricted to that part of social welfare that can be brought directly or indirectly into relation with the ,measuring rod of money".

(iii) A. C. Pigou - Published his book "the economic of welfare in 1920".

(iv) Criticism -

(1) Neglect of immaterial things

(2) Concept of welfare vague

(c) Science of choice making - Professor LIONEL ROBIN - "economics is the science which studies human behavior as a relationship between ends and scares means which have alternative uses".

(i) Economics is a science

(ii) Unlimited ends

(iii) Scares means

(iv) Alternative uses.

He wrote a book "Nature and Significance of Economics in 1931/32".

(v) Criticism -

(1) Impersonal and colorless

(2) Ignored macro economics aspects

(3) No focus on economic growth and development.

(4) Problem of abundance

(d) Science os dynamic Growth and Development -

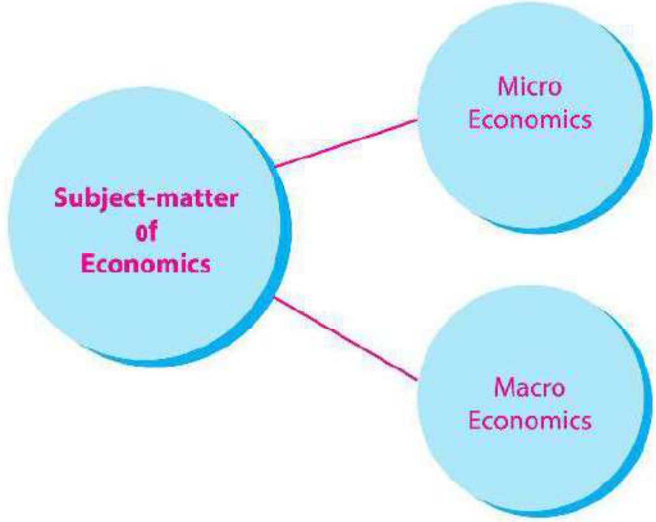
Paul A. Samuelson - "Economics is the study of how men and society choose with or without the use of money to employee scares productive resources which could have alternative uses to produce various commodities over time and distribute them for consumption now and in future amongst various people and groups of society.

Jacob viner - "Economics is what economist do".

DEFINITIONS OF BUSINESS ECONOMICS

Joel Dean dened Business Economics in terms of the use of economic analysis in the formulation of business policies. Business Economics is essentially a component of Applied Economics as it includes application of selected quantitative techniques such as linear programming, regression analysis, capital budgeting, break even analysis and cost analysis.

NATURE OF BUSINESS ECONOMICS



MICRO ECONOMICS

Derived from greek word **'MIKROS'** meaning small. Study of particular firm, household -

(I) Product pricing

(ii) Consumer behavior

(iii) Factor pricing

(iv) Economic condition of a section of the people (v) Study of firms (vi) Location of industry (allocation of resources)

MACRO ECONOMICS

Derived from greek word **'MAKROS'** meaning large. Study of overall conditions of the economy known as aggregate economics -

(I) National income and output

(ii) General price level

(iii) Balance of trade and payments

(iv) External value of money

(v) Saving and investment

(vi) Employment and economic growth.

NATURE OF ECONOMICS

(I) Economics is a science.

(1) Systematized body of knowledge.

(2) Capable of measurement.

(3) Own methodological apparatus

(4) Ability to forecast.

(II) Economics is an art - J. M. Keynes - " Art is a system of routes for the attainment of a given end. Art is an application of practical knowledge.

(III) Based on Micro Economics: Business Economics is based largely on Micro-Economics. Since Business Economics is concerned more with the decision making problems of individual establishments, it relies heavily on the techniques of Microeconomics.

(IV) Incorporates elements of Macro Analysis: A business unit does not operate in a vacuum. It is affected by the external environment of the economy in which it operates such as, the general price level, income and employment levels in the economy and government policies with respect to taxation, interest rates, exchange rates, industries, prices, distribution, wages and regulation of monopolies.

(V) Use of Theory of Markets and Private Enterprises:

(VI) Pragmatic in Approach: Micro-Economics is abstract and purely theoretical and analyses economic phenomena under unrealistic assumptions.

(VII) Interdisciplinary in nature:

ECONOMICS AS POSITIVE SCIENCE & AS NORMATIVE SCIENCE

Positive Science :-

(1) What Economy is ?

(2) It does not passes value judgements

(3) It analyses cause & effect relationship between variables

(4) As generalised statement (5) Emphasised by **Prof. Robbins.**

Normative Science :-

(1) What Economics is and what it ought to be (what should be the things)?

(2) Involves value judgements.

(3) Emphasised by **Marshall & Pigou.**

SCOPE OF BUSINESS ECONOMICS

1. Microeconomics applied to operational or internal Issues

Demand analysis and forecasting:

Production and Cost Analysis:

Inventory Management:

Market Structure and Pricing Policies:

Resource Allocation:

Theory of Capital and Investment Decisions:

Prot Analysis:

Risk and Uncertainty Analysis:

2. Macroeconomics applied to environmental or external issues

- **the type of economic system**
- **stage of business cycle**
- **the general trends in national income, employment, prices, saving and investment.**
- **Government's economic policies like industrial policy, competition policy, monetary and fiscal policy, price policy, foreign trade policy and globalization policies**

CENTRAL ECONOMIC PROBLEM

(1) What to produce ?

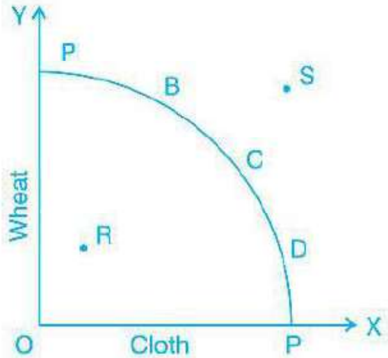
(2) How to produce ?

(3) For whom to produce ?

(4) What provisions are to be made for economic growth ?

PRODUCTION POSSIBILITIES CURVE

PPC or production **possibilities frontier or transformation curve** "is a graph that shows the deferent rates of production two goods that an individual or group can efficiently produce with limited productive resource.



P to B : Concept of trade off.

$$\text{Opp. Cost} = \frac{\triangle Y}{\triangle X} \text{ rises}$$

R : underutilisation

S : unattainable

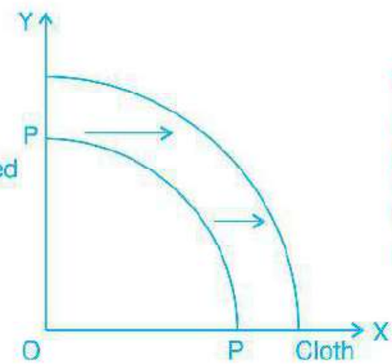
P,B,C,D,P : optimum / fuller utilization of resources.

PPC TABLE

Production possibility	Cloth (meters)	Wheat (Quintals)	Opportunity Cost
A	0	15	-
B	1	14	1
C	2	12	2
D	3	9	3
E	4	5	4
F	5	0	5

ASSUMPTION

(a) Given amount of resources
(b) Technology constant
(c) Resources neither unemployed nor underemployed



Economic and shift in PPC :

(a) Imgovernment in technology
(b) Greater capital formation
(c) Increases in population growth
(d) Discovery of new raw materials

PPC is concave to the origin : Concept of rising opportunity cost as we go down opposite cost rises.

DIFFERENT TYPES OF ECONOMIES

(1) Capitalist Economy :

(i) The right of private propert (laissez faire economy)
(ii) Freedom of enterprise
(iii) Consumer sovereignty
(iv) Profit motive
(v) Competition
(vi) Inequalities of income. Example - USA, UK

(2) Socialist Economy :

(i) Centrally planned economy or command economy

(ii) Collective ownership

(iii) Central planning authority

(iv) Absence of consumer choice

(v) Relatively equal income distribution

(vi) Minimum role of price mechanism or market forces

(vii) Involves bureaucracy, redtapism, favouritism, etc.

(viii) Government intervention. Example - China, Russia.

(3) Mixed Economy :

(i) Existence of private and public sector.(mixed sector is one in which both the government and private enterprises have equal access and join hands to produce a commodity)

(ii) Existence of economic planning

(iii) Positive role of government

(iv) Administered price.

Example :

India

ECONOMIC CYCLES

(1) Boom :

(a) growth rate of national output is 2.5% p.a

(b) involves danger of inflation

(c) taxes rises

(d) employment rises

(e) profits rises

(f) investment rises

(g) demand rises

(2) Economic slow down :

Rate of growth decelerates but national output is still rising.

(3) Economic recession : (fall in level of real national output) last recession in Britain (1990/92)

(a) demand falls

(b) Government borrowing

(c) subsidies

(d) employment falls

(e) the large stage of economic recession is depression at which economic activities touches its low point in terms of production, employment, savings, investments.

(4) Economic Recovery :

A recovery occurs when real national output picks up from the trough reached at the low point of recession.

Q. 1 The law of Scarcity Ans (d)
a) does not apply to rich, developed countries b) applies only to less developed countries
c) implies that consumers wants will be satisfied in a socialist system d) implies that consumers wants will never be completely satisfied

Q. 2 Economics according to Lionel Robbins is Ans(.c)
a) Normative Science b) Applied science
c) Positive Science d) Experimental Science

Q. 3 Macro economics is also called -------Economics? Ans (b)
a) Applied b) Aggregate
c) Experimental d) none of the above

Q. 3 Economic goods are considered scarce resources because they ..... Ans (b)
a) Cannot be increased in quantity b) Do not exist in adequate quantity to satisfy social requirements
c) are of importance in satisfying social requirements d) are limited to man made goods

Q. 5 In a free market economy the allocation of resources is determined by : Ans (c)
a) votes taken by consumers b) a central planning authority
c) consumer preference d) the level of profits of firms

Q. 6 The term Economics owes its origin to the greek word Ans (c)
a) Aikonomia b) Wikonomia
c) Oikonomia d) None of the above

Q. 7 The classical economists defined Economics as Ans (c)
a) The science of Welfare b) The science of scarcity
c) The science of wealth d) The science of wealth and welfare

Q. 8 Scarcity is a situation in which .... Ans(a)
a) wants exceed the resources available b) something is being wasted
c) people are poor d) none of the above

Q. 9 When productivity increases............... Ans (b)
a) prices rise b) Living standards Improve
c) There are fewer good jobs d) Living standards deteriorate

Q. 10 Production possibilities curve is also known as Ans (d)
a) Demand Curve b) Supply Curve
c) Indifference curve d) Transformation curve

Q. 11 Freedom of choice is the advantage of Ans (b)
a) Socialism b) Capitalism
c) Mixed Economy d) Communism

CHAPTER 2

THEORY OF DEMAND

UNIT-1

MEANING OF DEMAND

Demand refers to the quantity of a particular commodity which a consumer ready, willing and able to purchase at a particular price and at a particular period of time.

The quantity demanded of any commodity is the amount of that commodity, that buyers are willing and able to purchase at a given price.

$$\text{Demand} = \text{Desire} + \text{Purchasing Power}$$

THREE ELEMENTS OF DEMAND

- **Quantity**
- **Price**
- **Specific time and place**

DEMAND FUNCTION

Functional relationship between demand and various factors is termed as demand function.

$$Dx = f(P, Pr, I, T, Fe)$$

DETERMINANTS OF DEMAND

- **Price**
- **Income**
- **Expectations about future**
- **Number of Buyers**
- **Tastes**
- **Prices of other goods**
- **Quality**

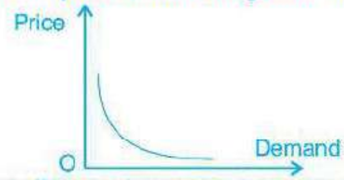
FACTORS AFFECTING DEMAND

All the factors are discussed below one by one :

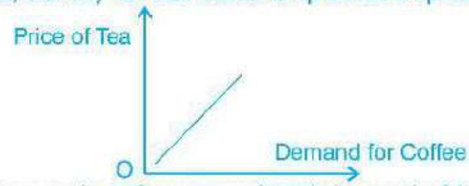
1. Price of the own commodity (Inverse) : There exists an inverse relationship between price of the own goods and its demand(ceteris, paribus I e. other factors being constant).

[P ⇑ D ⇓]

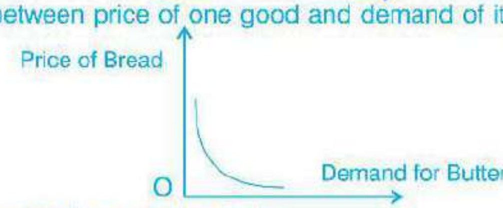
[P ⇓ D ⇑]



2. Price of the related goods : (a) Competing Goods / Substitute Goods (Tea, Coffee) : Direct relationship between price of one good and demand for its substitutes(ceteris, paribus).



   (b) Complementary Goods (Bread, Butter) : Inverse relationship between price of one good and demand of its complementary(ceteris, paribus).



3. Income of consumer : (a) Normal Goods (Wheat, Rice) : Direct relationship (upward slopping).
   (b) Inferior Goods (Bajra, Ragi) : Inverse relationship (backward bending).
4. Taste and Preference : Moves in favor, demand rises; moves against, demand falls.
5. Future expected price of the commodity : (Fe rises, D rises) (Fe falls, D falls) (direct relationship)

TYPES OF DEMAND

Individual Demand :

- Individual demand refers to quantity demanded of a commodity at a given price, by an individual consumer.

Market Demand :

- Market demand is the aggregation of individual demand.

MARKET DEMAND

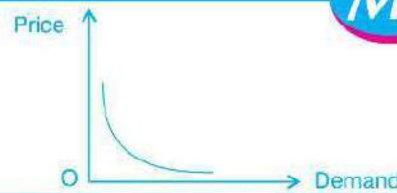
1. **Demographic structure of the country (Nature and Size of population).**
2. **Distinction of Income : (a)Equal (Basic necessary goods) (b) Unequal (luxury goods)**
3. **Government Policy : (a) Taxes (demand falls) (b) Subsidy (demand rises)**
4. **Business Cycle : (a) Boom (demand rises) (b) Depression (demand falls)**
5. **Seasonal and Weather conditions**

LAW OF DEMAND

"Other things being equal, the quantity demanded increases with a fall in price and diminishes when price rises".

The claim that the quantity demanded of goods falls when the price of the goods rises & vice versa can be explained in the following demand schedule.

1. Inverse relationship between price and demand (ceteris, paribus).
2. Is a qualitative statement (states that direction and non magnitude).
3. States that effect of change of price on demand and not vice - versa.



EXCEPTIONS TO THE LAW OF DEMAND

1. **Giffen Goods (upward slopping) : There is a positive relationship between the price of a good and its quantity demanded.**
2. **Veblen (ostentatious) Goods (upward slopping) : There is a positive relationship between the price of a good and its quantity demanded.**
3. **Speculation (share market)**
4. **Band wagon Effect (Playing Golf)**
5. **Habits (Drugs, Alcohol)**
6. **Further changes in future expected price of the commodity.**

DEMAND SCHEDULE

Tabular representation of the relation between demand and price is demand schedule.

PRICE (RS./KG)	Demand for mangoes (Kg / week)
30	5
25	10
20	15
15	20
10	25

The table that shows the relationship between the price of a commodity and the quantity demanded

Example :

Individual Demand for mangoes.

DEMAND CURVE

Graphical representation of the relation between demand and price is demand curve.

Movement Along the same Demand curve.

Also Known as Contraction
or Expansion In Demand .

CHANGE IN QUANTITY DEMANDED / MOVEMENT ALONG THE DEMAND CURVE

Change in quantity demanded / movement along the demand curve takes place because of change in price (ceteris, paribus).

(a) Expansion (price falls, demand rises) : Downward movement along the same demand curve.

(b) Contraction (price rises, demand falls) : Upward movement along the same demand curve. Diagram no. 7

CHANGE IN DEMAND / SHIFT IN THE DEMAND CURVE

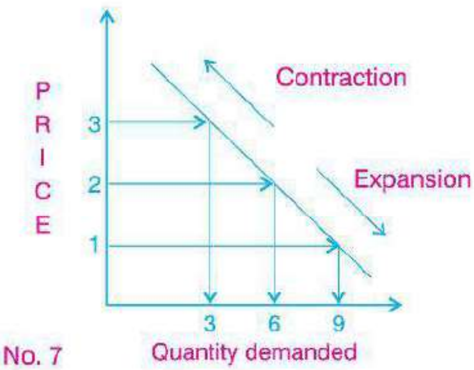
Change in demand / shift in the demand curve takes place because of other factors, price remaining constant.

(a) Increase in demand : Rightward shift (Ps rises or Pc falls or I rises or T greater than or Fe rises).

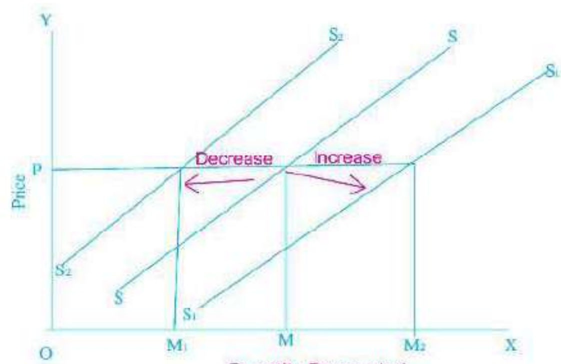
(b) Decrease in demand : Leftward shift (Ps falls or Pc rises or I falls or T less than or Fe falls). Diagram no. 8

VARIABLES THAT INFLUENCES BUYERS AND THEIR EFFECT ON DEMAND CURVE.

- Price causes a movement along the D curve
- No. of buyers shifts the D curve
- Income shifts the D curve
- Price of related goods shifts the D curve
- Tastes shifts the D curve
- Expectations shifts the D curve



D. No. 7



D. No. 8

Q. 1 In a typical Demand Schedule, Quantity Demanded : Ans : C

a) Varies Directly with price
b) Varies proportionately with price
c) Varies Inversely with Price
d) Is Independent of price

Q. 2 If an increase in income of the consumer leads to decrease in demand then the goods in question are : Ans : C

a) Normal Goods
b) Luxury Goods
c) Inferior Goods
d) Substitute goods

Q. 3 A Buyer's willingness to pay is that : Ans: D

a) Minimum amount he is willing to pay for a commodity
b) Producer Surplus
c) Consumer Surplus
d) Maximum amount he is willing to pay for a commodity

Q. 4 If a price of good A increases relative to price of substitute B & C, the demand for : Ans : C

a) B Will Increase
b) C Will Increase
c) B and C will Increase
d) B and C will Decrease

Q. 5 Contraction in demand is a result of : Ans : B

a) Decrease in Number of Consumers
b) Increase in the price of Concerned Goods
c) Increase in the price of Other Goods
d) Decrease in the Income of the Consumers

Q. 6 A increase in demand can result from : Ans : B

a) A Decline in Market price
b) An Increase in Income
c) A Reduction in Price of Substitutes
d) An Increase in the Price of Compliments

UNIT-2 CONSUMER BEHAVIOR

W H A T I S U T I L I T Y

- Utility is the want satisfying power of a commodity.

  OR

- Utility is satisfaction and it is subjective in nature.

Utility $\neq$ Usefulness

TWO IMPORTANT THEORIES OF CONSUMER BEHAVIOR

- By Alfred Marshall : Marginal Utility Analysis or Cardinal Utility Analysis
- By Hicks & Allen : Indifference Curve Analysis or Ordinal Utility Analysis

WHY DOES LAW OF DEMAND OPERATES ?

(1) LAW OF DIMINISHING MARGINAL UTILITY(CARDINAL APPROACH)

As the consumer goes on increasing the units of a commodity consumed, every additional units gives lesser and lesser satisfaction.

(a) When TU rises MU falls (positive)

(b) When TU maximum MU = 0

(c) When TU falls MU falls (negative)

MU = It is the additional utility derived from the consumption of an additional unit of a commodity.

$MU = TU_n - TU_{n-1}$

OR

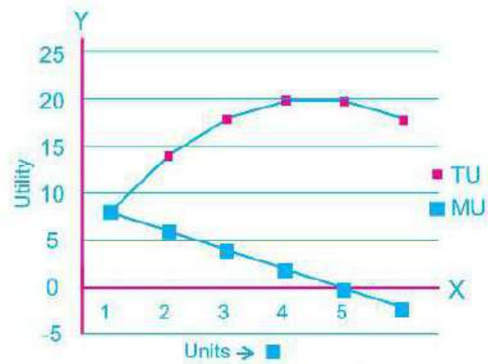
$MU = \frac{\text{Change in TU}}{\text{Change in units}}$

where u = Units of Commodity Consumed.

RELATIONSHIP BETWEEN TU & MU

Ex. Suppose consumer wants to consume ice-cream.

Units of Icecream	TU	MU
1	8	8
2	8+6 = 14	6
3	14+4 = 18	4
4	18+2 = 20	2
5	20+0 = 20	0
6	20+(-2)=18	-2



1) Till MU remains +ve, TU increases. 2) When MU is zero, TU is maximum. 3) When MU is -ve, TU decreases.

ASSUMPTIONS

- The cardinal measurement of utility is possible
- MU of money remains constant
- The hypothesis of independent utility
- Consumer is rational

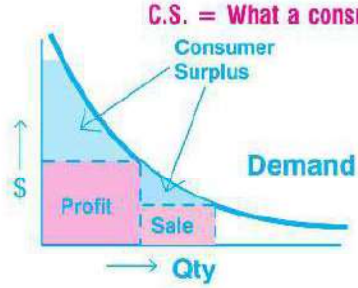
LIMITATIONS OF LAW OF DMU

- Homogeneous Units
- Standard Units of consumption
- Continuous consumption
- The law fails in the case of prestigious goods
- Case of related goods

CONSUMER SURPLUS

- Marshall defined the concept as "excess price which a consumer would be willing to pay rather than go without a thing over that which he actually does pay."
- Is called consumer's surplus.

C.S. = What a consumer is willing to pay – What he actually pays.

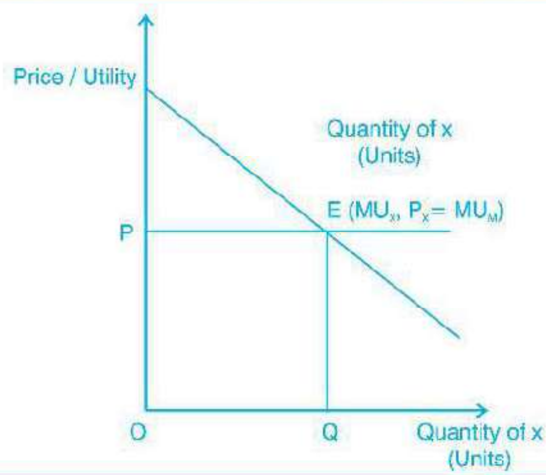


Consumer Surplus = Mux - Px

- At equilibrium Px = MUx; when more than one commodity is purchased then $\frac{Mu_x}{MU_y} = P_x / P_y$ also termed as Law of Equilibrium Marginal Utility; At E C. S. = 0. TU shape is inverted 'U'; MU shape is downward sloping.

MEASUREMENT OF CONSUMER'S SURPLUS

No. of units of icecream	MU	Price	Consumer's surplus
1	40	20	40 - 20 = 20
2	30	20	30 - 20 = 10
3	20	20	20 - 20 = 0
4	10	20	10 - 20=-10



(2) PRICE EFFECT (ORDINAL APPROACH)

Price effect : The total fall in quantity demanded due to an increase in price is termed as Price effect. The law of demand can be dubbed as "Negative Price Effect" with some exceptions. The price effect manifests itself in the form of income effect and substitution effect.

Price Effect = Income Effect + Substitution Effect

- Income Effect is the effect of change of price of the commodity on the real income of the consumer. (positive for normal goods, negative for inferior goods)
- Substitution Effect is the effect of change in price on the demand for substitute goods.(positive for both normal and inferior goods)
- All giffen goods are inferior but all inferior goods are not giffen goods.

Q. 1 Indifference analysis is based on the idea of — Ans : (b)
a) Law of DMU
b) Ordinal Utility
c)Cardinal Utility
d) None

Q. 2 MRS is the rate at which the consumer is willing to substitute one good for another without changing the level of _____. — Ans : (c)
a) income
b) price
c) satisfaction
d) none

Q. 3 Two ICs never intersect each other because — Ans: (b)
a) they can't be close to each other
b) they represent different levels of satisfaction
c) both
d) None

Q. 4 The budget line is also known as: — Ans : (b)
a) income line
b)price line
c)preference line
d) none

Q. 5 Condition of consumer's equilibrium: — Ans : (d)
a) Slope of IC = slope of budget line
b) MRS_{xy} = PX/PY
c) MRS = price ratio of two goods
d)all of the above

Q. 6 _____ shows various combinations of two products that give same amount of satisfaction: — Ans: (b)
a) ISO cost curve
b) Indifference curve
c) Marginal utility curve
d) ISO quant

Q. 7 TU is maximum when: — Ans : (b)
a)MU is maximum
b)MU is zero
c)Average utility is maximum
d) Average utility is zero

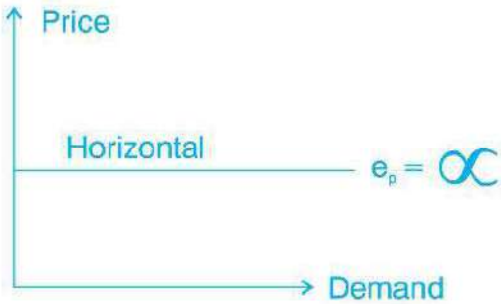
Q. 8 An Indifference Curve is always: — Ans :(b)
a) Concave to the origin
b) Convex to the origin
c) L-shaped
d) A vertical straight line

Q. 9 Marginal utility curve of a consumer is also his: — Ans :(d)
a) Indifference Curve
b) Total utility curve
c) Supply curve
d) Demand curve

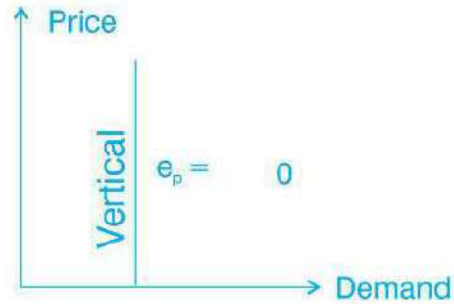
UNIT-3 ELASTICITY OF DEMAND

PRICE ELASTICITY (E_P)

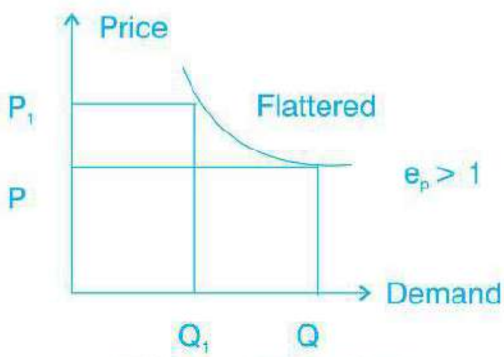
- It is the measure of degree of responsiveness of change in quantity demanded of a commodity due to change in its price of own commodity. (ceteris paribus)
- $e_p = \dfrac{\text{\% Change in Quantity Demanded}}{\text{\% Change in price}}$



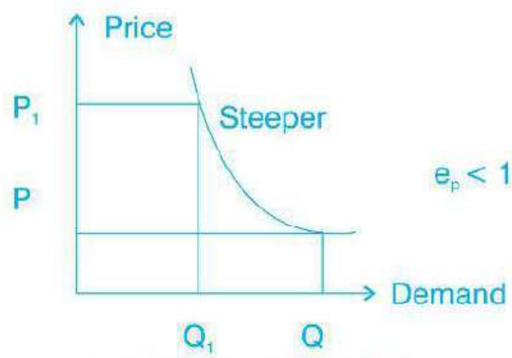
PERFECTLY ELASTIC



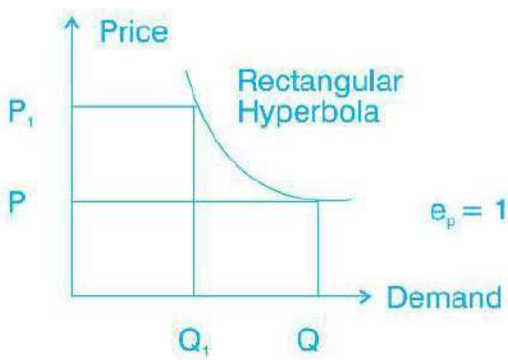
PERFECTLY INELASTIC



HIGHLY ELASTIC



HIGHLY INELASTIC



UNITARY ELASTIC

METHODS OF MEASURING PRICE ELASTICITY

DETERMINANTS OF PRICE ELASTICITY

(a) Nature of Commodity :-

(b) Availability of Substitutes :-

(c) Proportion of Income spent :-

(d) Number of uses :-

(e) Durability of the commodity :-

(f) Habitual Nec. :-

INCOME ELASTICITY (E_I)

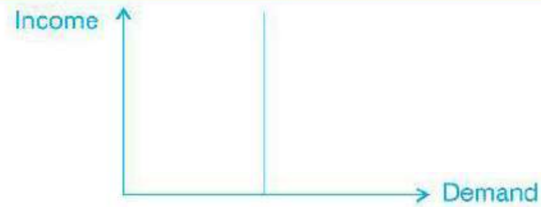
It is the measure of degree of responsiveness of change in quantity demanded of a commodity due to change in Income of the consumer (Ceteris Paribus)

$$e_I = \frac{\text{\% Change in Quantity Demanded}}{\text{\% Change in Income of Consumer}}$$

TYPES OF ELASTICITY (E_I)

+ve i.e. ($e_I > 0$) = Normal Goods

-ve i.e. ($e_I < 0$) = Inferior Goods



zero i.e. ($e_i = 0$) = No relation

($e_i > 1$ = Denotes Luxury Goods)

($e_i < 1$ = Denotes basic necessary goods.

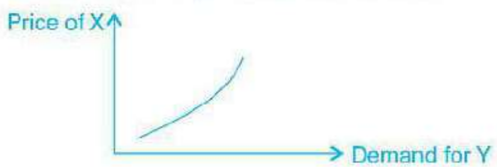
CROSS PRICE ELASTICITY (E_c)

It is the measure of degree of responsiveness of change in quantity demanded of one commodity due to change in price of its related goods (Ceteris Paribus)

$$e_c = \frac{\text{\% Change in Quantity Demanded of X}}{\text{\% Change in Price of Y}}$$

TYPES OF ELASTICITY

+ve CPE (ec > 0) = Substitute Goods



-ve CPE (ec < 0) = Complementary Goods

zero i.e. (ec = 0) = No Relation

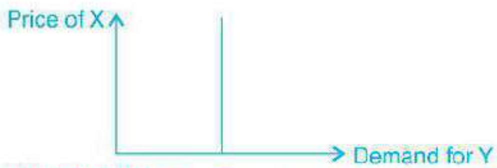


Illustration 1:- The price of 1kg of tea is ₹ 30. At this price 5kg of tea is demanded. If the price of coe rises from ₹ 25 to ₹ 35 per kg, the quantity demanded of tea rises from 5kg to 8kg. Find out the cross price elasticity of tea.

Solution :- (1.5)

Illustration 2:- The price of 1 kg of sugar is ₹50. At this price 10 kg is demanded. If the price of tea falls from ₹30 to ₹25 per kg, the consumption of sugar rises from 10 kg to 12 kg. Find out the cross price elasticity and comment on its value.

Solution :- (-1.2)

Advertisement Elasticity

Advertisement elasticity of sales or promotional elasticity of demand is the responsiveness of a good's demand to changes in firm's spending on advertising. The advertising elasticity of demand measures the percentage change in demand that occurs given a one percent change in advertising expenditure. Advertising elasticity measures the effectiveness of an advertisement campaign in bringing about new sales.

Advertising elasticity of demand is typically positive. Higher the value of advertising elasticity greater will be the responsiveness of demand to change in advertisement. Advertisement elasticity varies between zero and infinity. It is measured by using the formula;

$$Ea = \frac{\text{\% Change in demand}}{\text{\% change in spending on advertising}}$$

$$Ea = \frac{\Delta Qd / Qd}{\Delta A / A}$$

Where ΔQd denotes change in demand.

ΔA denotes change in expenditure on advertisement.

Qd denotes initial demand.

A denotes initial expenditure on advertisement.

Elasticity	Interpretation
Ea = 0	Demand does not respond to increase in advertisement expenditure.
Ea >0 but < 1	Change in demand is less than proportionate to the change in advertisement expenditure.
Ea = 1	Demand changes in the same proportion in which advertisement expenditure changes.
Ea > 1	Demand changes at a higher rate than change in advertisement expenditure.

As far as a business firm is concerned, the measure of advertisement elasticity is useful in understanding the effectiveness of advertising and in determining the optimum level of advertisement expenditure.

DEMAND FORECASTING

Forecasting of demand is the art and science of predicting the probable demand for a product or a service at some future date on the basis of certain past behaviour patterns of some related events and the prevailing trends in the present. It should be kept in mind that demand forecasting is no simple guessing,

Usefulness :

The very process of forecasting helps in evaluating various forces which aect demand and is in itself a reward because it enables the forecasting authority to know about various forces relevant to the study of demand behaviour.

Scope of Forecasting :

Demand forecasting can be at the international level depending upon the area of operation of the given economic institution. It can also be conned to a given product or service supplied by a small rm in a local area.

Types of forecasts

(1) Macro-level forecasting
(ii) Industry- level forecasting
(iii) Firm- level forecasting
(2) Based on time period
(i) Short-term demand for six months or less than one year
(ii) Long-term forecasts two to five years and more.

Demand Distinctions

a) Producer's goods and Consumer's goods

b) Demand for Durable goods and Non-durable goods

c) Derived demand and Autonomous demand

d) Demand for firm's product and industry demand

e) Short-run demand and Long-run demand

Factors affecting demand for non-durable consumer goods:

(i) Disposable income:

(ii) Price:

(iii) Demography:

Factors affecting the demand for durable-consumer goods:

(i) A consumer can postpone the replacement of durable goods.

(ii) These goods require special facilities for their use e.g. roads for automobiles,

(iii) Replacement demand is an important component of the total demand for durables.

Methods of demand Forecasting

(i) Survey of Buyers' Intentions:

a) Complete enumeration method where nearly all potential customers are interviewed about their future purchase plans

b) Sample survey method under which only a scientifically chosen sample of potential customers are interviewed

c) End-use method, especially used in forecasting demand for inputs, involves identification of all null users, fixing suitable technical norms of consumption of the product under study, application of the norms to the desired or targeted levels of output and aggregation.

(ii) Collective opinion method: This method is also known as sales force opinion method or grass roots approach. Firms having a wide network of sales personnel can use the knowledge, experience and skills of the sales force to forecast future demand. Under this method, salesmen are required to estimate expected sales in their respective territories.

(iii) Expert Opinion method: The Delphi technique, developed by Olaf Helmer at the Rand Corporation of the USA, provides a useful way to obtain informed judgments from diverse experts by avoiding the disadvantages of conventional panel meetings.

(iv) Statistical methods:

(a) Trend Projection method:

a) Fitting trend equation or least square method.

b) Graphical Method:

c) Fitting trend equation:

d) Regression analysis:

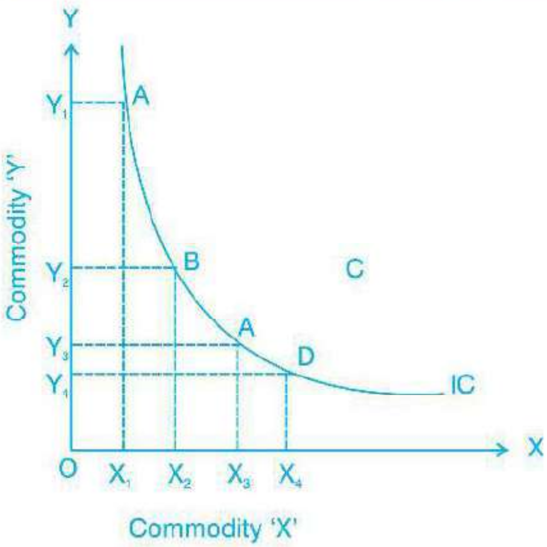
(v) Controlled Experiments: Under this method, future demand is estimated by conducting market studies and experiments on consumer behavior under actual, though controlled, market conditions. This method is also known as market experiment method.

(vi) Barometric method of forecasting: The various methods suggested till now are related with the product concerned. These methods are based on past experience and try to project the past into the future.

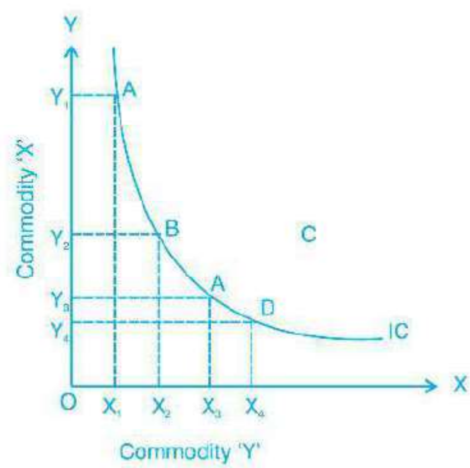
UNIT-4 INDIFFERENCE CURVE ANALYSIS

It is the locus of different points, each point representing a commodity bundle consisting of some units of Commodity X & some units of Commodity Y , giving the consumer the same level of satisfaction, i.e. a consumer will remain indifferent to any point on the same Indifference Curve.

INDIFFERENCE CURVE



- An Indifference curve shows various combinations of two commodities which give equivalent satisfaction to the consumer.

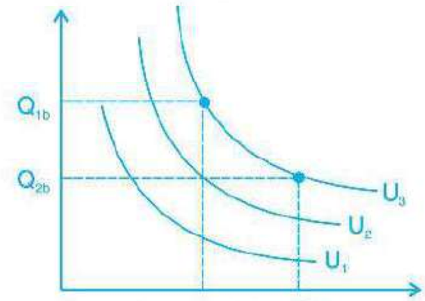


Different points A,B,C & D on indifference curve show those combinations of food & clothing which give equal satisfaction to the consumer.

NOTE:- An Indifference curve is also known as Iso-Utility Curve.

PROPERTIES OF INDIFFERENCE CURVE

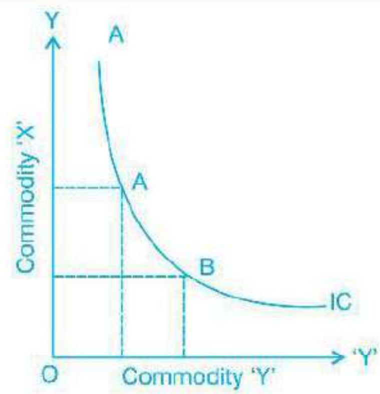
(1) INDIFFERENCE CURVE, HIGHER IS THE LEVEL OF SATISFACTION



Quantity of Good A

(2) AN INDIFFERENCE CURVE SLOPES DOWNWARD FROM LEFT TO RIGHT

It has a negative slope.



An IC which lies above and to the right of another IC gives a higher level of satisfaction than the lower one.

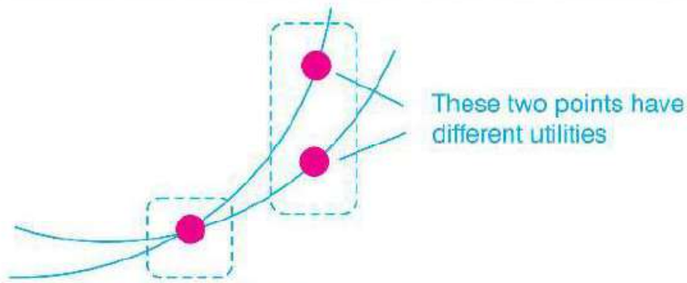
(4) INDIFFERENCE CURVES ARE ALWAYS CONVEX TO THE ORIGIN

- It is based on the assumptions of diminishing MRS.
- This goods are perfect substitutes : If I.C is a straight line
- As more and more of One commodity (Food) is substituted for another (clothing). The consumer is willing to part with less & less of the commodity being substituted (clothing).
- If Indifference Curve is 'L' shaped then Goods are Complimentary

MARGINAL RATE OF SUBSTITUTION (MRS) IT IS THE RATE AT WHICH THE CONSUMER IS PREPARED TO EXCHANGE GOODS X AND Y.

Combinations	Food (Unit)	Clothing (Unit)	MRS
A	10	1	-
B	7	2	1 : 3
C	5	3	1 : 2
D	4	4	1 : 1

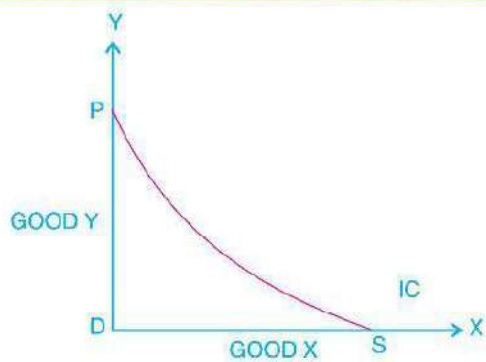
(5) TWO INDIFFERENCE CURVES NEVER INTERSECT EACH OTHER



- Because each IC represent different level of satisfaction so they do not intersect each other.

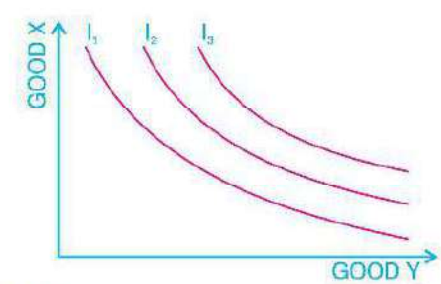
(6) INDIFFERENCE CURVE WILL NOT TOUCH EITHER AXES

- Based on the assumption that consumer wants both commodities.



INDIFFERENCE MAP

- A set of Indifference curves is called Indifference Map



- Higher IC shows higher level of satisfaction.

IC3 > IC2 > IC1

BUDGET LINE (PRICE LINE)

- A budget line shows all those combinations of two goods which the consumer can buy spending his given money income on the two goods at their given price.

TWO CONSTRAINTS

- He has to pay prices for the goods &
- He has a limited income.

Suppose consumer's income = Rs.20

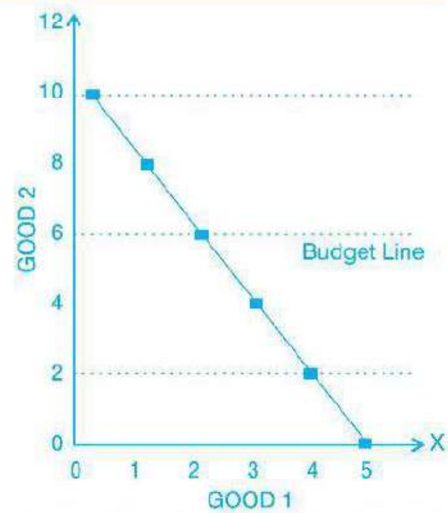
price of good 1 = Rs.4 per unit

price of good 2 = Rs. 2 per unit

Here, Total expenditure is P1.Q1 + P2.Q2 = Income)

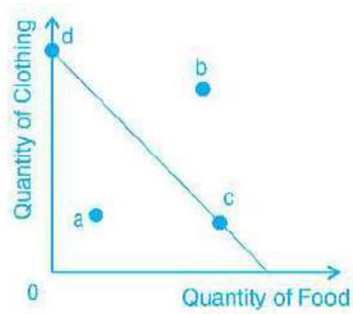
BUDGET SCHEDULE

Combination	Good 1	Good 2	Total expenditure
A	0	10	20
B	1	8	20
C	2	6	20
D	3	4	20
E	4	2	20
F	5	0	20



All those combinations which are within the reach of the consumer (assuming that he spends all his money income) will lie on the budget line.

- Any point outside the given price line, will be beyond the reach of the consumer.
- Any combination lying within the line, shows under utilization by the consumer of his income.



PROPERTIES OF BUDGET LINE

- It is negatively sloped line.
- The slope of budget line is equal to the price ratio of two commodities.
- It is a straight line.

Consumer is in equilibrium position when price line is tangent to the indifference curve.

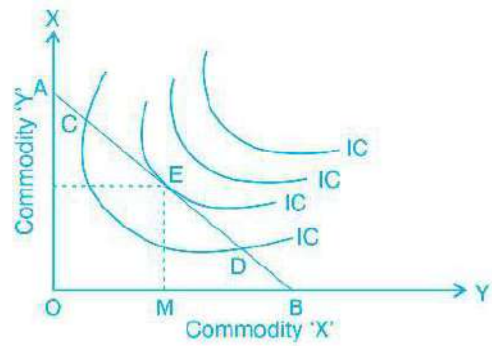
OR

Marginal rate of substitution of good X & Y is equal to Slope of budget line.

At equilibrium-

$$MRS_{xy} = \frac{MU_X}{MU_Y} = \frac{P_X}{P_Y}$$

Slope of IC = Slope of Budget Line



Slope of Budget Line = Price ratio

$$\frac{\Delta Y}{\Delta X} = \frac{P_x}{P_Y}$$

Indifference Curve	:	It shows the taste and preferences of the consumer.
Budget Line	:	It tells us what the household can do(purchase).
Consumer's equilibrium	:	It means getting maximum satisfaction.

SIMILARITY BETWEEN TWO APPROACHES (CARDINAL & ORDINAL)

Consumer is rational	Law of diminishing marginal utility.	Identical equilibrium condition.

CHAPTER 3

Supply

MEANING OF SUPPLY

- The term 'supply' refers the amount of a good or service that the producers are willing and able to offer to the market at various prices during a period of time.

SUPPLY

- The supply refers to what firms offer for sale, not necessarily to what they succeed in selling
- Supply is a flow

DETERMINANTS OF SUPPLY

The relation between Price & Supply is Directly termed as law of Supply, i.e. Supply Curve is Upward sloping.

FACTORS INFLUENCING SUPPLY

- **Price of the Goods**
- **Prices of related Goods**
- **Prices of the Factors of Production**
- **State of Technology**
- **Change in Government policy**
- **Other Factors**

Price of the Commodity

- Higher the price higher the supply
- Profits
- Direct Relationship between Price and Profit

Price of the related good :

- The price of other goods rise, they become relatively more profitable
- If price of Y increase the quantity supply of x falls
- The price of other goods rise, they become relatively more profitable
- If price of Y increase the quantity supply of x falls

Price of the factors of production :

- Rise in factor will rise in cost
- For e.g. increase in the cost of land will largely affect on the cost of producing wheat
- It cause producer to shift from one line to another

State of technology :

- Improvement in technology will reduce the cost of production
- It will increase the supply of good in question
- Similarly any obstacles to existing technology supply will be decreased
- The state of technology remains constant

Government Policy :

- A fresh tax or levy of excise duty on a commodity will affect the price of the commodity and as a result the supply will get affected.
- An increase in tax will reduce the supply
- Granting of subsidy will increase the supply

Other Factors :

- Industrial and foreign polices
- Goals of the firm
- Infrastructural facilities
- Market structure
- Natural factors

SUPPLY SCHEDULE OF COMMODITY X

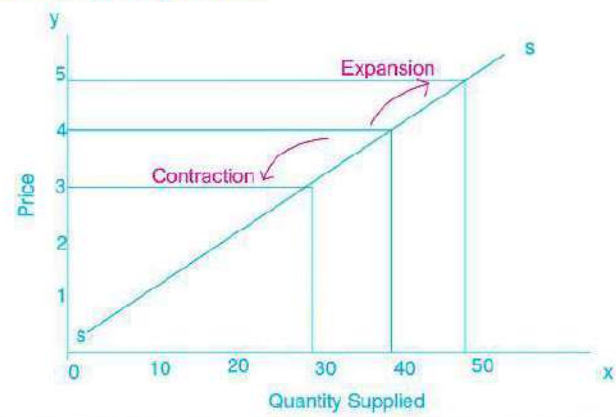
Price in Rs.	Quantity supplied in units
1	10
2	20
3	30
4	40
5	50

CONTRACTION AND EXPANSION OF SUPPLY

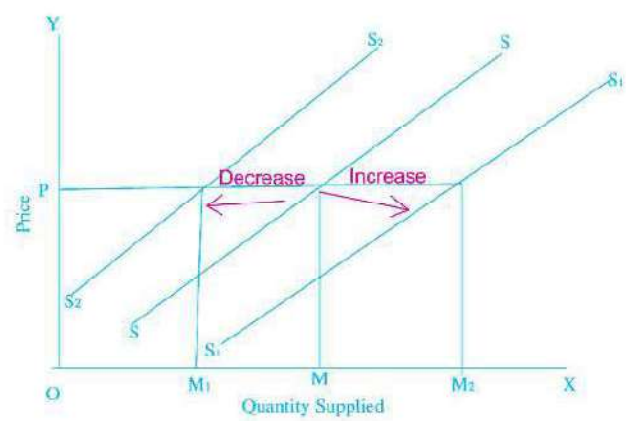
Other things remaining equal, the supply of a commodity will expand if there is a rise in price and contract if there is a fall in price.

MOVEMENTS OF SUPPLY CURVE

Change in quantity supplied as a result of change in price



INCREASE & DECREASE IN SUPPLY



SUPPLY ON THE BASIS OF TIME PERIOD

Very short period :

- The supply is available in the market at any given time
- Supply which is fixed for the entire market but can be varied for retailers

Long period :

- Supply refers to change in supply because the existing factors of productions can be changed.

ELASTICITY OF SUPPLY AND ITS MEASUREMENT

- The responsiveness of supply to changes in price
- Elasticity of supply measures the adjustability of supply to price
- Supply is elastic when a small change in price causes more than proportionate change in supply
- Supply is inelastic if small change in price produces less than proportionate change in supply.

TYPES OF ELASTICITY

- Perfectly inelastic supply – Supply curves of zero elasticity
- Relatively less-elastic supply – Showing relatively less elastic supply
- Relatively greater-elastic supply – Showing relatively greater elastic supply
- Unit elastic – Showing unitary elasticity
- Perfectly elastic supply – Supply curve of infinite elasticity.
-

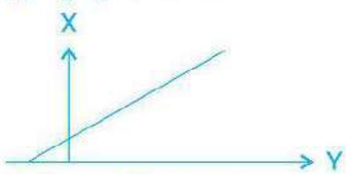
It is the measure of degree of responsiveness of change in quantity supplied of a commodity due to change in its price, (ceteris, paribus)

It is of 5 types :-

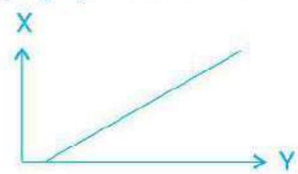
(a) Perfectly Elastic = ∞

(b) Perfectly In -elastic = 0

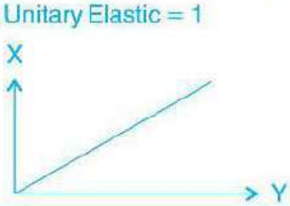
(c) Highly Elastic > 1



(d) Highly In - elastic < 1



(e) Unitary Elastic = 1



MEASURING ELASTICITY OF SUPPLY

The elasticity of supply can be considered with reference to a given point on the supply curve or between two points on the supply curve

- Point Elasticity
- $E_s = \frac{d_q}{d_p} \times \frac{p}{q}$
- Arc Elasticity
- $E_s = \frac{q_1 - q_2}{q_1 + q_2} \times \frac{p_1 + p_2}{p_1 - p_2}$

Stock (Broader)	Supply (Narrower)
(1) Stock means entire quantity	(1) Part of stock which the supplier is ready to sell at a particular price at a particular period of time
(2) It is a static concept.	(2) It is a flow concept.

However supply & stock are same in case of perishable Goods.

EXCEPTIONS TO THE LAW OF SUPPLY

(a) Agricultural Goods

(b) Rare Goods, Antiques, Old Coins, Manuscripts

(c) Perishable Goods (Supply Curve is perfectly in elastic)

(d) Supply Curve for labour is backward bending

Equilibrium Price

Equilibrium refers to a market situation where quantity demanded is equal to quantity supplied. The intersection of demand and supply determines the equilibrium price. At this price the amount that the buyers want to buy is equal to the amount that sellers want to sell. Only at the equilibrium price, both the buyers and sellers are satisfied. Equilibrium price is also called market clearing price.

The determination of market price is the central theme of micro economic analysis. Hence, micro economic theory is also called price theory. The following table explains the equilibrium price

Table 10 : Supply and Demand Schedule

Price (₹)	Quantity Demanded	Quantity Supplied	Impact on price
5	6	31	Downward
4	12	25	Downward
3	19	19	Equilibrium
2	25	12	Upward
1	31	6	Upward

Q. 1 When Supply curve moves to the left it means : Ans : a
a) Smaller Supply
b) Larger Supply
c) Constant Supply
d) None of the above

Q. 2 Elasticity of supply is Zero means : Ans : C
a) Imperfectly elastic supply
b) Perfectly elastic supply
c) Perfectly inelastic supply
d) none of the above

Q. 3 If the demand is more than supply then the pressure on price will be : Ans: B
a) Downward
b) Upward
c) Constant
d) None of the above

Q. 4 The supply curve shift to the right because of : Ans : A
a) Improved technology
b) Increased price of factors of production
c) Increased exercise duty
d) All of the above

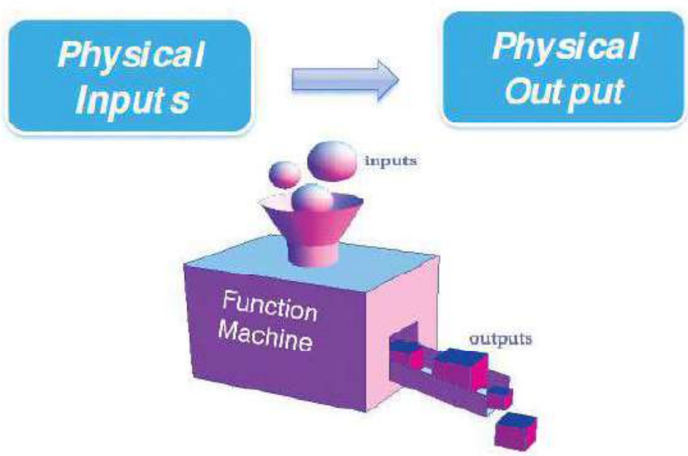
Q. 5 Supply is a ______________________ concept : Ans : C
a) Stock
b) Flow and stock
c) flow
d) None of the above

CHAPTER 4

THEORY OF PRODUCTION

MEANING OF PRODUCTION

- By the term production we mean creation of goods and services for the purpose of selling them in the market.
- It is an economic activity.
- It means creation of utility.
- According to James Bates and J. R. Parkinson "Production is the organised activity of transforming resources into finished products in in the form of goods and services; and the objective of production is to satisfy the demand of such transformed resources".



Examples :

- Making of clot h by an industry.
- Services of retailer who delivers goods to consumers
- Doctors, lawyers, teachers, choreographers providing their services

Factors of production :

- Land
- Labor
- capital and
- entrepreneurial ability are all the factors (resources) which make it possible to produce goods and services.

LAND

Meaning :

- 'Land' is used in a special sense in economics. It does not mean soil or earth's surface alone, but refers to "all free gifts of nature".

Characteristics of Land :

- Land is nature's gift.
- Supply of land is fixed.
- It has indestructible powers.
- It is a passive factor.
- It has different uses.

LABOR

Meaning :

- The term 'labor' means only mental or physical exertion directed to produce goods and services.

Labor :

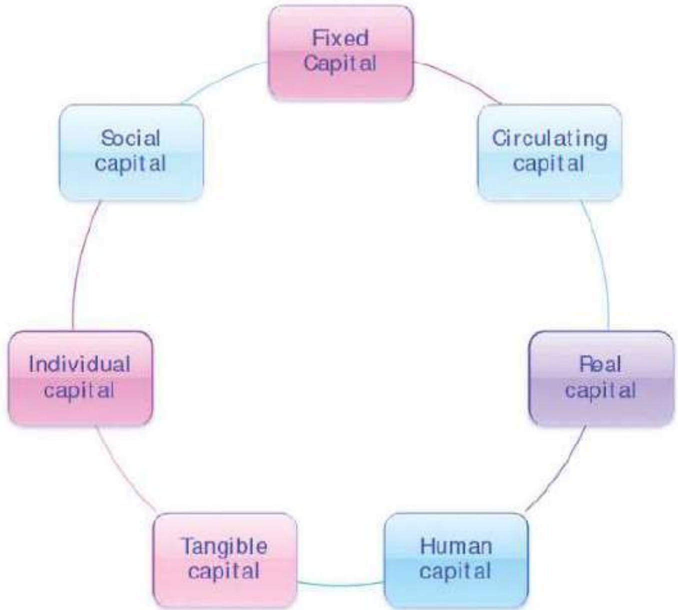
- Human effort
- Labor is perishable
- Labor is inseparable from the laborer
- Labor power differs from laborer to laborer
- All laborers are not productive
- Labor has poor bargaining power
- Choice between hours of labor and hours of leisure
- Laborer is mobile

CAPITAL

Meaning :

- It is that part of wealth which is used for further production of wealth.
- Capital is a stock concept which yields a periodical income which is a flow concept.
- Capital has been rightly defined as "produced means of production".

TYPES OF CAPITAL



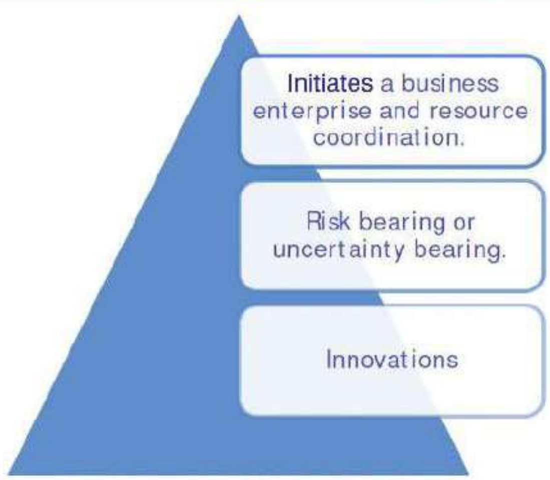
CAPITAL FORMATION

- Capital formation means a sustained increase in the stock of real capital in acountry.
- Capital formation is also known as investment.

STAGES OF CAPITAL FORMATION

- Savings: Ability and willingness to save.
- Mobilization of savings: Banking habits of people.
- Investment : Entrepreneur should be prepared to bear risk in business and invest savings.

FUNCTIONS OF ENTREPRENEURE



Enterprise's objectives and constraints

Thus, the objectives of an enterprise may be broadly categorised under the following heads:

1) Organic objectives
2) Economic objectives
3) Social objectives
4) Human objectives
5) National objectives

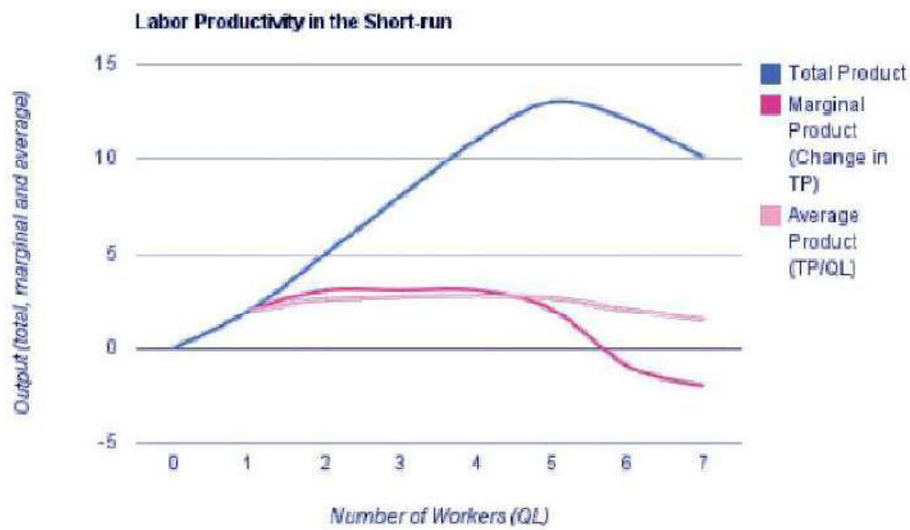
PRODUCTION FUNCTION

- The functional relationship between inputs and output.
- The relationship between the maximum amount of output that can be produced and the input required to make that output. It is dened for a given state of technology i.e., the maximum amount of output that can be produced with given quantities of inputs under a given state of technical knowledge. (Samuelson)
- Cobb - Douglas Production Function :
- $Q = KL^aC^{(1-a)}$; where 'Q' is output, 'L' the quantity of labor, 'C' the quantity of capital, 'K' and 'a' are positive constants. The conclusion draw from this famous statistical study is that labor contributed about 3/4 and capital about 1/4 of the increase in the manufacturing production.

SHORT RUN	LONG RUN
1. Some factors of production are variable in nature whereas some are fixed. 2. Law of variable proportion operates here Y = f(K,L) where Y is output, K is capital, L is labor, F is functional relationship.	1. All the factors of production are variable in nature. 2. Law of returns to scale operates here Y = f(K,L)

LAW OF VARIABLE PROPORTION

- The law states that as we increase the quantity of one input which is combined with other fixed inputs, the Marginal Physical Productivity of the variable input must eventually decline.
- The law st at es t hat as we increase t he quant i t y of one input which is combined with ot her fixed input s, t he Marginal Physical Product ivi t y of t he var iable input must event usually decl ine. quant i t y of one input which is combined wi t h ot her f ixed input s, t he Marginal Physical Product ivi t y of t he variable input must event ual ly decl ine.nput must eventually decline.



CONCEPT OF PRODUCTS

Total Product (TP)

Total quantity of goods produced by a firm during a given period of time with given number of inputs.

i. $TP = \Sigma MP$

ii. $TP = AP * N$

Here, ΣMP = sum of MP

AP = average product

N = no. of units of variable factor

Average Product (AP)

- It means per unit output of the variable fact or.
- Average product is the total product per unit of variable factor.
- $AP = \frac{TP}{N}$

Marginal Product (MP)

- Marginal product is the change in total product per unit change in the quantity of variable factor.
- $MP = \Delta TP/\Delta N$
- Here, ΔTP = change in total product
- ΔN = change in units of variable factor
- It is also known as the addition made to the total production by an additional unit of output .
- $MP = TP_n - TP_{n-1}$
- Here, TP_n = Total product of n units
- $TP_{n-}1$ = Total product of n-1 units

RELATIONSHIP BETWEEN TP & MP

Fixed Factor (e.g. Land)	Variable Factor (e.g. Labor)	TP	MP
1	0	0	-
1	1	2	2
1	2	6	4
1	3	12	6
1	4	16	4
1	5	18	2
1	**6**	**18 (max.)**	**0**
1	7	16	-2

STAGES OF THE LAW OF VARIABLE PROPORTION

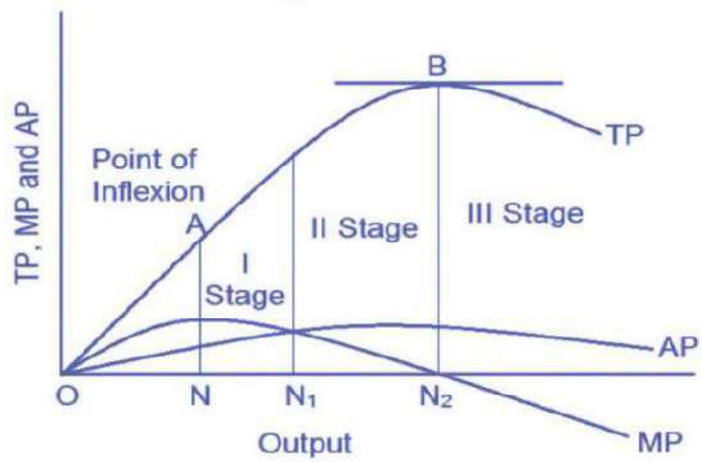
(a) Law of Increasing Returns : In this stage TP, AP & MP starts from the origin. TP rises at an increasing rate in the beginning, later on rises at a diminishing rate. The point where TP changes its direction is termed as point of inflection. MP rises and reaches its maximum at the point of inflection, then starts falling. AP rises and reaches its maximum at the end of the first stage and there AP = MP i.e. when Ap is rising.

(b) Law of Diminishing Returns : In this stage TP continues to rise at a diminishing rate and reaches its maximum. AP falls. MP falls and becomes zero at the point where TP is maximum (when TP maximum; MP = 0)

(c) Law of Negative Returns : In this stage TP falls, AP falls but does not touches the X axis. MP falls and becomes negative.

LAW OF VARIABLE PROPORTION

Figure 1



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RELATIONSHIP BETWEEN AP & MP

- When Marginal product is above Average product, Average product increases.
- When Marginal product is equal to Average product, Average product reaches to maximum and is constant.
- When Marginal product is below Average product, Average product falls.
- Maximum point of Marginal product comes first than that of Average product

ASSUMPTIONS OF THE LAW

1. State of technology is constant.
2. Some inputs must be fixed.
3. The law does not apply where factors must be used in fixed proportion to yield output.
4. We consider only physical inputs and outputs.

REASONS FOR THE OPERATION OF THE LAW

1) Indivisibility of fixed factors.
2) Optimum combination of factors.
3) Fuller utilization of fixed factors.
4) Division of labor and specialization.

REASONS FOR THE LAW OF DIMINISHING RETURNS

1) Operation beyond optimum combination capacity.
2) One factor is imperfect substitute for another.
3) Scarcity of fixed factor.

REASONS FOR THE LAW OF NEGATIVE RETURNS

Quantity of variable factor becomes too excessive relative to the fixed factor.

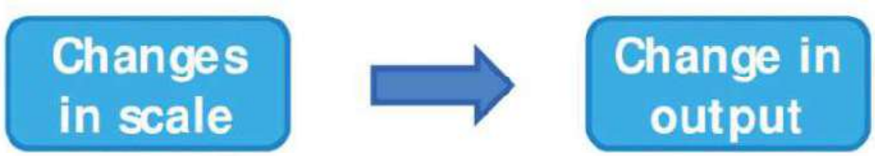
In which stage a rational producer would like to produce?

Ans. 2nd stage.

LONG RUN (RETURNS TO SCALE)

Change In Scale :

It means that all factors of production are increased or decreased in the same proportion.



Returns to scale may be of 3 types :

a) Increasing returns to scale
b) Constant returns to scale
c) Diminishing returns to scale

Increasing returns to scale :

- ∆It means that output increases in a greater proportion than the increase in inputs.
- % increase in output > % increase in inputs

Example :

Scale of production	Change in output
1 machine + 2 labor	*100*
2 machines + 4 labor	*250*

Constant returns to scale :

- It means with the increase in scale in some proportion, output increases in the same proportion.

  % increase in output = % increases in inputs

Example :

Scale of production	Change in output
1 machine + 2 labor	*100*
2 machines + 4 labor	*200*

Decreasing returns to scale :

- It means when output increases in a smaller proportion with an increase in all inputs.
- % increase in output < % increases in inputs

Example :

Scale of production	Change in output
1 machine + 2 labor	*100*
2 machines + 4 labor	*150*

Reason decreasing returns to scale :

- 1. Indivisibility of factors.
- 2. Specialization of land and machinery.

Reason for constant returns to scale :

Economies of the scale neutralize with dis-economies of the scale.

Reason for decreasing returns to scale :

1. Increasing difficulties of management, coordination and cont rol .
2. It is difficult to manage t he same efficiency as before.

THE COBB - DOUGLAS PRODUCTION FUNCTION

- If a+b > 1: Increasing returns to scale
- If a+b = 1: Const ant returns to scale
- If a+b < 1: Decreasing returns to scale

PRODUCTION OPTIMIZATION

- It can be explained with the help of Isoquants and Isocostlines.

ISOQUANTS

- Isoquants are similar t o Indifference curves.
- An isoquant represent s al l t hose combinations of input s which are capable of producing t he same level of out put.

Isoquants
OR

Equal product curves
OR

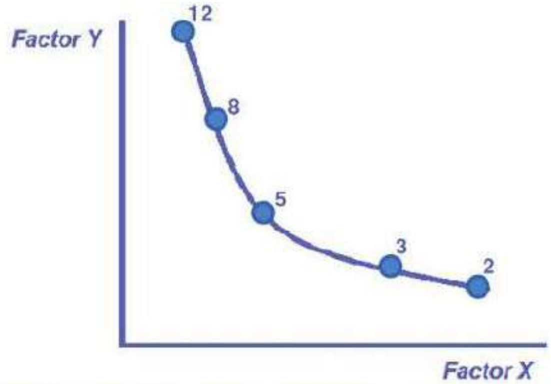
Iso-product curves
OR

Production Indifference curves

ISO - PRODUCT CURVE

VARIOUS COMBINATIONS OF X AND Y TO PRODUCE A GIVEN LEVEL OF OUTPUT

Factor combinations	Fact or X	Fact or Y
A	1	12
B	2	8
C	3	5
D	4	3
E	5	2



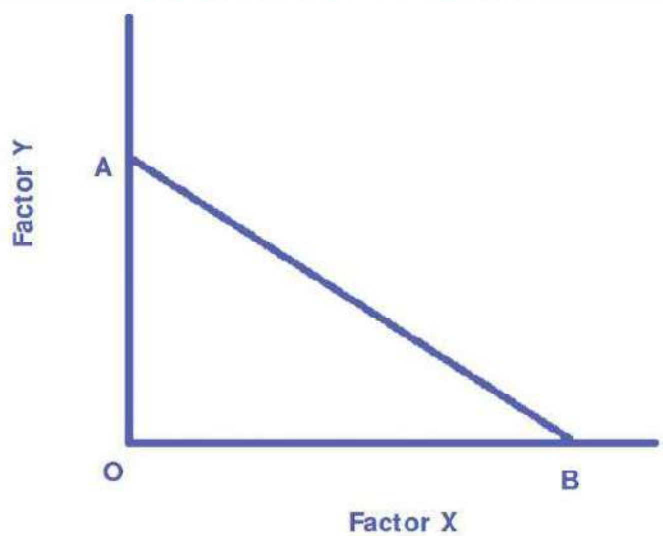
ISO COST OR EQUAL COST LINES

- Iso cost lines represent s the prices of factors.
- It shows various combinations of two factors which the firm can buy with given out lay.

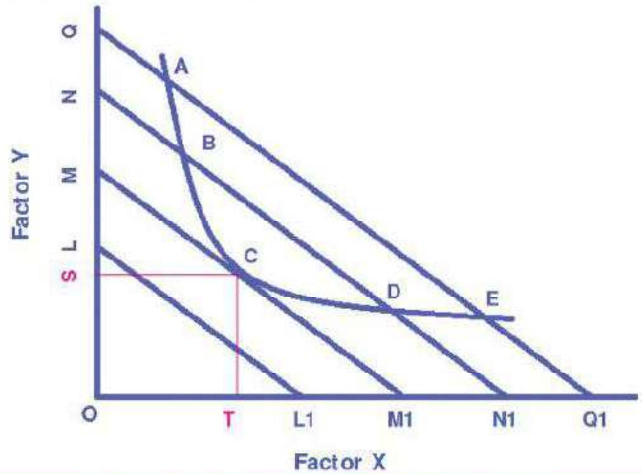
Example :

Combinations	Quantity of Factor X	Quantity of Factor Y	Total expenditure
A	100	0	1000
B	80	10	1000
C	60	20	1000
D	40	30	1000
E	20	40	1000
F	0	50	1000

ISO COST LINE



THE FIRM WILL TRY TO USE LEAST COST COMBINATION



PRODUCT OPTIMIZATION

The cost of producing 1000 units would be minimum at the factor combination represented at point C.

Where Iso cost line MM_1 is tangent to the given Isoquant P.

INTERNAL ECONOMIES & DISECONOMIES

Internal Economies & Diseconomies occurs due to change in the size of output, accrues to a particular firm & not industry.

- **Technical economies and diseconomies**
- **Managerial economies and diseconomies**
- **Commercial economies and diseconomies**
- **Financial economies and diseconomies**
- **Risk bearing economies and diseconomies**

EXTERNAL ECONOMIES & DISECONOMIES

External Economies & Diseconomies accrues to all the firm, due to certain changes in the industry as a whole.

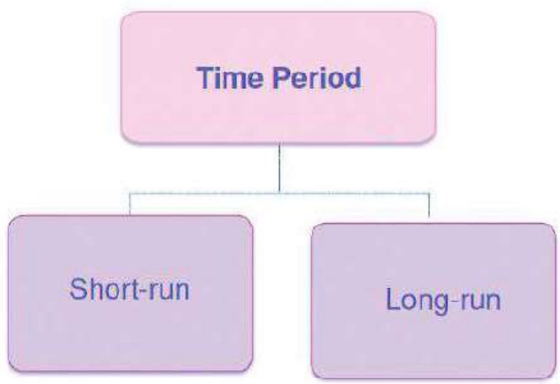
- Cheaper raw materials and capital equipment
- Technological external economies
- Development of skilled labor
- Growth of ancillary industries
- Better transportation and marketing facilities

CHAPTER 5

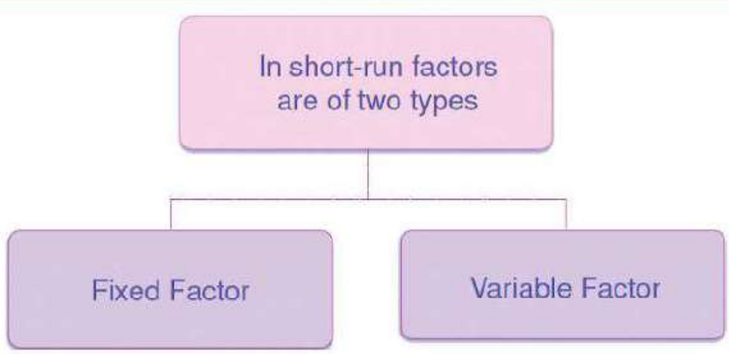
COST

COST FUNCTION

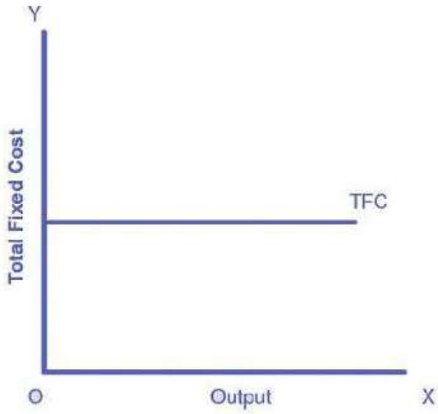
- It refers to the mathematical relation between cost of a product and the various determinants of costs.
- $C = f(Q_x)$
- C = cost
- f = function
- (Q_x) = quantity produced

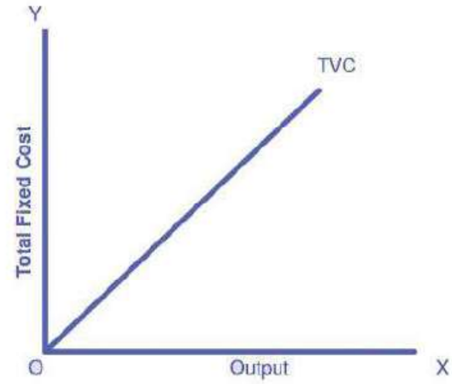


SHORT RUN COST



Fixed Cost	Variable Cost
1. Fixed cost are those cost that are independent of the level of output produced.	1. Variable cost are those that are dependent on the level of output produced.
2. Even when output level is '0' they have to be incurred.	2. Variable cost remains '0' at '0'th output level.
3. Shape of the TFC curve is straight line horizontal to the X-axis.	3. Shape of variable cost is inverted 'S'
4. TFC curve starts from a point above the origin.	4. VC curve starts from origin.
5. Example : Salary of Watchman, Depreciation, Rent paid, Property Taxes	5. Example : Cost of raw material, Fuel, Wages





At 0th level of Output :- TVC = 0

TC = TFC + TVC

= TFC + 0

= TFC

i.e., TC = TFC (At Output = 0)

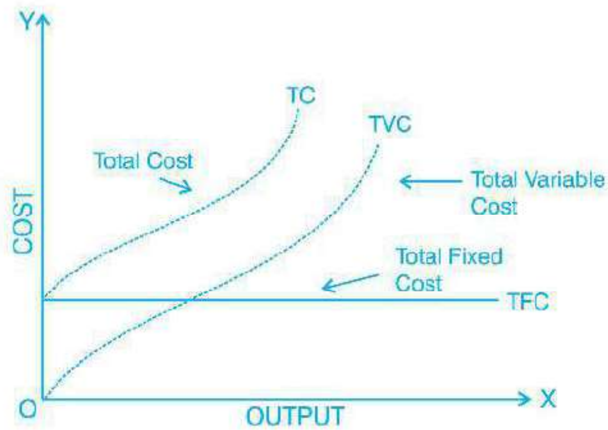
OUTPUT	0	1	2	3	4
TOTAL COST	100	150	260	370	400
TOTAL FIXED COST					
TOTAL VARIABLE					

Find TFC & TVC

WHY MARGINAL COST CURVE IS U-SHAPED?

- Due to the operation of Law of variable proportion.
- In the beginning due to increasing returns, Marginal cost falls.
- Then after due to diminishing returns, Marginal cost rises.

TFC, TVC & TC



The Gap between TC & TVC denotes .... & the Gap remains ....

CONCEPT OF AVERAGE TOTAL COST

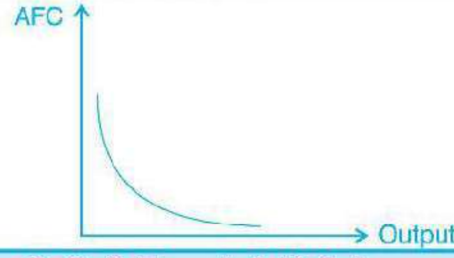
$$\frac{TC}{Q} = \frac{TFC}{Q} + \frac{TVC}{Q}$$

$$\frac{ATC}{AC} = AFC + AVC$$

AVERAGE FIXED COST

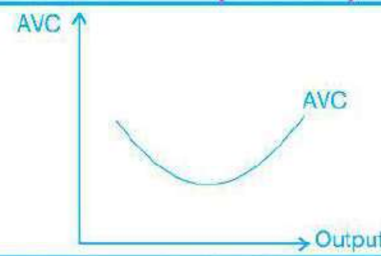
(a) When Quantity(Q) rises, TFC remaining constant, AFC falls.

(b) AFC is a rectangular hyperbola / downward sloping.



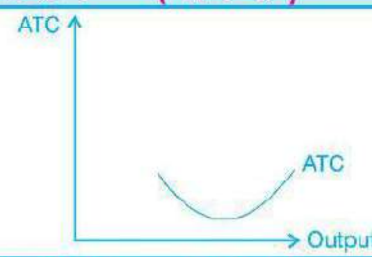
AVERAGE VARIABLE COST (AVC)

AVERAGE VARIABLE COST (AVC) is ' U ' shaped because of Law of Variable Proportion.



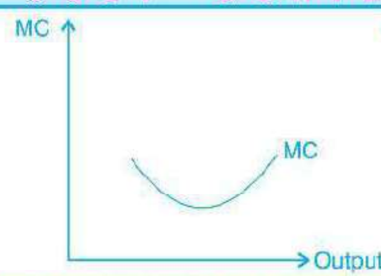
AVERAGE TOTAL COST (ATC)

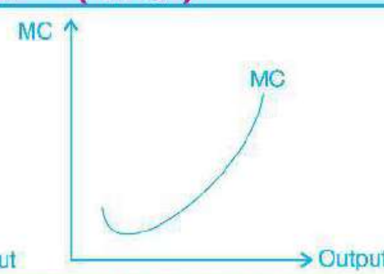
AVERAGE TOTAL COST (ATC) is ' U ' shaped because of Law of Variable Proportion.



MARGINAL COST CURVE (MC)

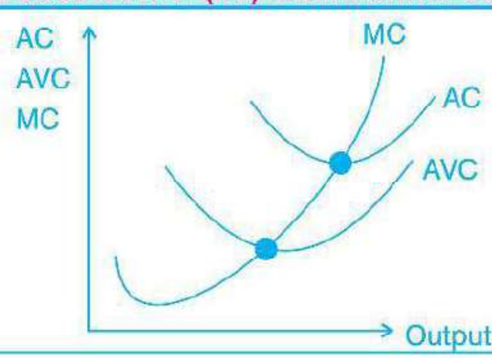
MARGINAL COST CURVE (MC) is 'U' shaped.





RELATIONSHIP BETWEEN AVERAGE COST CURVE (AC) & MARGINAL COST CURVE (MC)

MARGINAL COST CURVE (MC) is 'U' shaped.

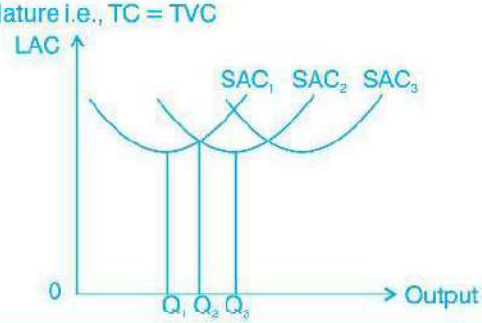


SHORT RUN COSTS

Units of Output	TFC	TVC	TC	AFC	AVC	ATC	MC
0	20	0	20	-	-	-	-
1	20	30	50	20	30	50	30
2	20	45	65	10	22.50	32.50	15
3	20	55	75	6.67	18.33	25.00	10
4	20	75	95	5.00	18.75	23.75	20
5	20	110	130	4.00	22.00	26.00	35
6	20	165	185	3.33	27.50	30.83	55

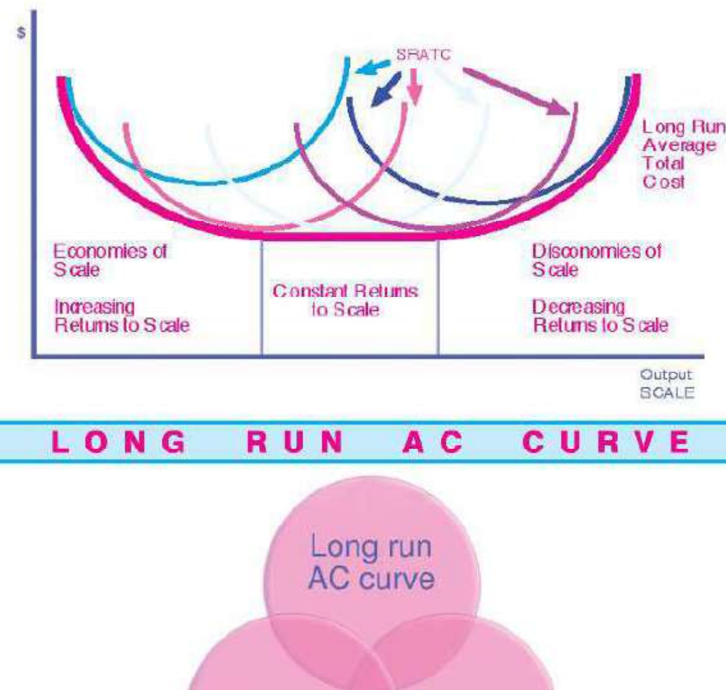
LONG RUN COST

In Long Run all the costs are variable in Nature i.e., TC = TVC

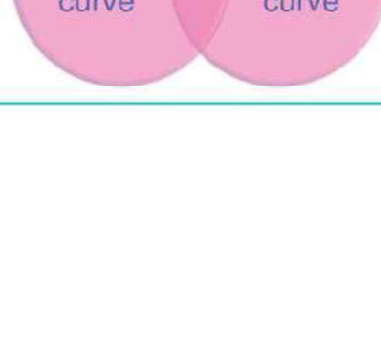


LAC is derived from above SAC curves.

DUE TO CONSTANT RETURNS TO SCALE LAC CURVE IS CONSTANT



L O N G R U N A C C U R V E



FORMULAS

$TC = TFC + TVC$

OR

$TC = TFC + \sum MC$

$TC = AC \times Q$

TC = TFC at zero level output

$TFC = TC - TVC$

$TFC = AFC \times Q$

TFC = AFC at one unit output

$TVC = TC - TFC$

$TVC = AVC \times Q$

$TVC = \sum MC$

$ATC = AFC + AVC$

$ATC = TC \div Q$

$AFC = ATC - AVC$

$AFC = TFC \div Q$

$AVC = ATC - AFC$

$AVC = TVC \div Q$

FORMULAS

$$MC = \Delta TC \div \Delta Q$$

OR

$$MC = \Delta TVC \div \Delta Q$$

$$MC = TC_n - TC_{n-1}$$

OR

$$MC = TVC_n - TVC_{n-1}$$

CONCEPT (MISCELLANEOUS)

Economic Cost = Explicit Cost + Implicit Cost + Normal Profit

Explicit Cost / Accounting Cost	Implicit Cost / Imputed Cost
1. Recorded in the books of accounts.	1. Not recorded in the books of accounts.
2. Cash outflow takes place.	2. Cash outflow does not takes place.
3. Example : Salary paid to staff.	3. Example : Salary paid to owners.

Economic Profit = Total Revenue - Economic Cost

Accounting Profit = Total Revenue - Explicit Cost

Accounting Profit always > Economic Profit.

- Total Revenue = Rs. 500000; Rent paid = Rs. 100000; Salary paid to staff = Rs. 200000; If owner was working somewhere else he would be earning Rs. 250000. Find Accounting Cost, Economic Cost,, Accounting Profit, Economic Profit.

OUTLAY COSTS & OPPORTUNITY COSTS

Outlay Costs	Opportunity Costs
• It involves actual expenditure of funds on say wages, rent, interest etc.	• It is concerned with the cost of forgone opportunity.
• Outlay costs are recorded in the books of accounts.	• Opportunity Costs are not recorded in the books of accounts.

OPPORTUNITY COSTS

- It involves a comparison between the policy that was chosen and the policy that was rejected.

Example :

The opportunity cost of using capital is the interest it can earn in the next best use of capital with equal risk.

TYPES OF COSTS

- **Cost**
  - Direct cost (Traceable cost)
  - Indirect Cost (Non-traceable cost)

DIRECT COST

- Cost that are readily identified and are traceable to a particular product, operation or plant.

Example :

Manufacturing cost

INDIRECT COST

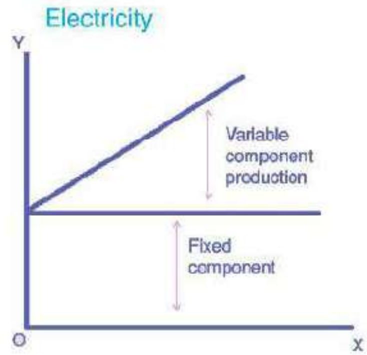
- Cost that are neither readily identified and are nor visibly traceable to specific goods, services, operations etc.
- But they bear some functional relationship to production

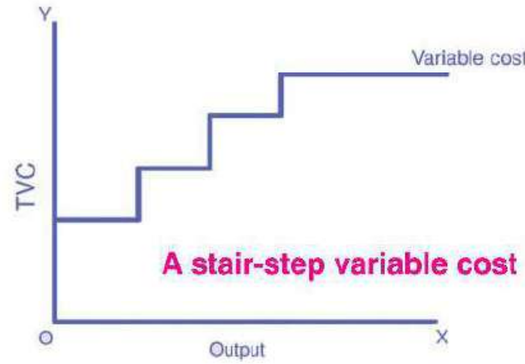
Example : Electric power, Common costs for general operation

TOTAL SEMI-VARIABLE COSTS

- Some cost which are neither perfectly variables, nor absolutely fixed in relation to the changes in the size of output.

Example :





Q. 1 Which Cost Increases Continuously With the Increase in Production? Ans : (d)

a) Average cost
b) Marginal cost
c) Fixed cost
d) Variable cost

Q. 2 Which of the Following Cost Curves is Never U-shaped? Ans : (d)

a) Average cost curve
b) Marginal cost curve
c) Average variable cost curve
d) Average fixed cost curve

Q. 3 Total cost in the short run is classified into fixed costs and variable costs. Which one of the following is a variable cost? Ans: (a)

a) Cost of raw material
b) Cost of equipment
c) Interest payment on past borrowings
d) Payment of rent on building

Q. 4 In the Short Run, When the Output of a Firm Increases, Its Average Fixed Cost: Ans : (b)

a) Increases
b) Decreases
c) Remains constant
d) First declines and then rises

Q. 5 Which One of the Following is Also Known as Planning Curve? Ans : (a)

a) Long run average cost curve
b) short run average cost curve
c) Average variable cost curve
d) Average total cost curve

Q. 6 TThe Efficient Scale of Production is the Quantity of Output That Minimizes: Ans: (b)

a) Average fixed cost
b) Average total cost
c) Average variable cost
d) Marginal cost

Q. 7 The Cost of One Thing in Terms of the Alternative Given Up is Known as: Ans : (d)

a) Production cost
b) Physical cost
c) Real cost
d) Opportunity cost

Q. 8 With Which of the Following is the Concept of Marginal Cost Closely Related? Ans : (a)

a) variable cost
b) fixed cost
c) opportunity cost
d) economic cost

CHAPTER 6

REVENUE

CONCEPT OF TOTAL & AVERAGE REVENUE

Total Revenue :

- It refers to the amount of money which a firm realizes by selling certain units of a commodity
- Symbolically

  $TR = P \times Q$

Average Revenue :

- Average revenue is the revenue earned per unit of output
- It is nothing but price of one unit of output because price is always per unit of a commodity
- Symbolically

  $AR = TR/Q$

  $(AR = P)$

Marginal Revenue :

- Marginal revenue is the change in total revenue resulting from the sale of an additional unit of the commodity

  Symbolically

  $$MR = \frac{\Delta TR}{\Delta Q}$$

BEHAVIOURIAL PRINCIPLES

Principle 1:

- A firm should not produce at all if total revenue from its product does not equal or exceed its total variable cost.

Principle 2 :

- It will be profitable for the firm to expand output whenever marginal revenue is greater than marginal cost
- It will expand the output until marginal revenue equals marginal cost

Summary

- The term market is a place where buyers and sellers bargain over a commodity for a price.
- Markets can be classified in various form
- The firms can operate with a complex set of objectives and under various constraints

TYPES OF MARKET

- **Perfect Competition** (Pure Competition)
- **Monopoly**
- **Imperfect Competition**
  - Oligopoly
  - Monopolistic Competition

Perfect Competition (Agriculture Market)

1. Large Numbers of buyers and sellers.
2. Goods are homogeneous in nature.
3. Free entry and free exit of the firm in long run.
4. Absence of selling cost.
5. Absence of transportation cost.
6. Perfect knowledge of buyers and sellers.
7. Perfect mobility of factors of production.

Pure Competition = 1+2+3

Price per Unit	Units Sold	TR	AR	MR
5	1			
5	2			
5	3			
5	4			
5	5			

$\therefore$ Price remains constant, it is a given datum so change in TR also remains constant

AR = MR

DIAGRAM SHOWING TR, MR, AR

FILL IN THE BLANKS

DEFINITION OF MONOPOLY

Monopoly is a Market situation in which there is a Single Seller, there are no Close Substitutes for Commodity it produces, there are Barriers to Entry.

- Koutsoyiannis

Pure or Absolute Monopoly exists when a Single Firm is the Sole Producer for a Product for which there are no Close Substitutes.

- Mc Connel

FEATURES

1. Single Seller and large number of buyers.
2. No close substitute for a product.
3. No free entry and free exit.
4. No selling cost.
5. A monopolist can practice Price Discrimination.

Price per Unit	Units sold	TR	AR	MR
10	1			
9	2			
8	3			
7	4			
6	5			
5	6			
4	7			
3	8			
2	9			
1	`10			

$\therefore$ As price falls, demand rises so, AR curve is downward slopping :

AR > MR

Slope of MR curve is twice of AR curve.

DIAGRAM SHOWING TR, MR, AR

FILL IN THE BLANKS

PRICE DISCRIMINATION UNDER MONOPOLY

The Act of Selling the same Article produced under Single Control at a different Price is known as Price Discrimination.

- Mrs. Joan Robinson

Price Discrimination refers strictly to the practice by a Seller to charging different Prices from different Buyers for the same Good.

- J.S.Bains

Price discrimination is a method of pricing adopted by the monopolist in order to earn abnormal profit

It refers to the practices of charging different prices for the different unit of the same commodity

- Personal Price Discrimination
- Place Price Discrimination

CONDITION FOR PRICE DISCRIMINATION

- The seller should have some control over the supply of his product
- The seller should be able to divide his market into two or more sub-markets
- The price-elasticity of the product should be different in different markets
- It should not be possible for the buyers of low-priced market to resell the product to the buyers of high-priced market

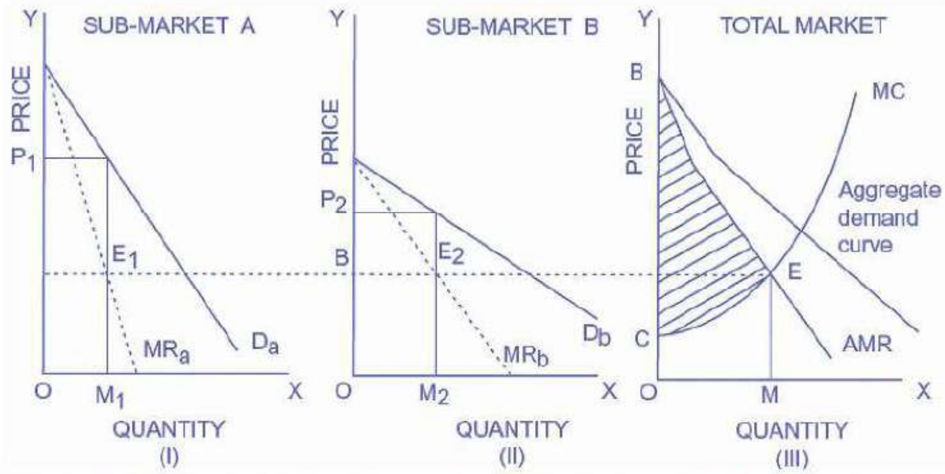
OBJECTIVES OF PRICE DISCRIMINATION

- To earn maximum profit
- To dispose of surplus stock
- To enjoy the economies of scale
- To capture foreign markets
- To secure equity through pricing.

FORMS OF PRICE DISCRIMINATION BY MONOPOLISTS

- Personal
- Local Area
- Income
- Size of the purchase
- Season
- Age of the consumer

PRICE DISCRIMINATION IN SUB-MARKETS



MONOPOLISTIC COMPETITION (REAL WORLD MARKET)

1. Large number of buyers and sellers.
2. Goods are heterogeneous / differentiated / close substitutes are available.
3. Free entry and free exit of the firm in the long run.
4. Selling cost is present.
5. Both price taker and price maker.

AR > MR

EXAMPLES OF MONOPOLISTIC COMPETITION

Banks	**Sporting Goods**
Radio Stations	**Fish and Seafood**
Clothing	**Jewelry**
Computers	**Health Spas**
Frozen Foods	**Apparel Stores**
Canned Goods	**Convenience Stores**

DIAGRAM SHOWING TR, MR, AR

FILL IN THE BLANKS

OLIGOPOLY

Features

1. Few sellers and large number of buyers.
2. Goods may be homogeneous or heterogeneous.
3. Selling cost may or may not be there.
4. Substantial barriers to free entry and free exit.
5. Both price makers and takers.
6. Close Interdependence.
7. Very intense competition.
8. Example : Cold Drink Industry, Car Industry.

∴ No AR or MR curve exists in this market.

However, under special assumptions point can be obtained :

1. Assumptions : ....

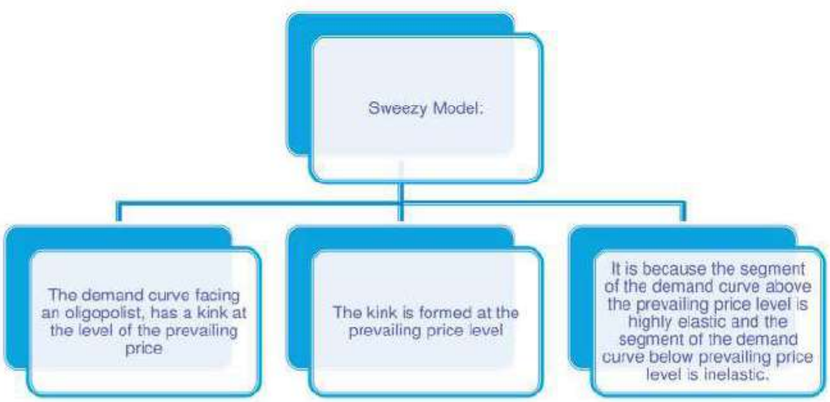
   ....
2. Name of the Economist : ....

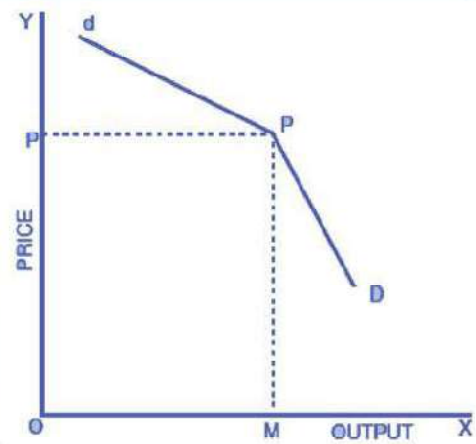
   ....
3. Shape of AR curve : ....

   ....
4. Shape of MR Curve : ....

   ....

KINKED DEMAND CURVE





Types of Oligopoly: Pure oligopoly or perfect oligopoly occurs when the product is homogeneous in nature, e.g. Aluminium industry. This type of oligopoly tends to process raw materials or produce intermediate goods that are used as inputs by other industries. Notable examples are petroleum, steel, and aluminium. Dierentiated or imperfect oligopoly occurs when goods sold is based on product dierentiation, e.g. Talcum powder.

Open and closed oligopoly: In an open oligopoly market new rms can enter the market and compete with the existing rms. But, in closed oligopoly entry is restricted.

Collusive and Competitive oligopoly: When few rms of the oligopoly market come to a common understanding or act in collusion with each other either in xing price or output or both, it is collusive oligopoly. When there is absence of such an understanding among the rms and they compete with each other, it is called competitive oligopoly.

Partial or full oligopoly: Oligopoly is partial when the industry is dominated by one large rm which is considered or looked upon as the leader of the group. The dominating rm will be the price leader. In full oligopoly, the market will be conspicuous by the absence of price leadership.

Syndicated and organized oligopoly: Syndicated oligopoly refers to that situation where the rms sell their products through a centralized syndicate. Organized oligopoly refers to the situation where the rms organize themselves into a central association for xing prices, output, quotas, etc.

SUMMARY

Form of Market Structure	No. of Firms	Nature of Product	Price Elasticity of Demand of a Firm	Degree of Control over Price
(a) Perfect Competition	A Large no. of Firms	Homogenous	Infinite	None
(b) Monopoly	One	Unique Product with close Substitute	Small	Very Considerable
(c) Imperfect Competition				
(i) Monopolistic Competition	A Large no. of Firms	Differentiated Products	Large	Some
(II) Oligopoly	Few Firms	Homogenous or Differentiated Product	Small	Some

RELATIONSHIP BETWEEN AR. MR, TR AND PRICE ELASTICITY OF DEMAND

It is to be noted that marginal revenue, average revenue and price elasticity of demand are uniquely related to one another through the formula:

$MR = AR \times \frac{e-1}{e}$ Where = price elasticity of demand

Thus if $e = 1$, $MR = AR \times \frac{1-1}{1} = 0$

and if $e > 1$, MR will be positive
and if $e < 1$, MR will be negative

CHAPTER 7

MARKET

MEANING OF MARKET

On the Basis of Area

Local Markets :

- Markets for perishable like butter, eggs, milk, vegetables, etc
- The transport of these over a long distance will be uneconomic

Regional Markets :

- Semi-durable goods command a regional market

National Markets :

- In this market durable goods and industrial items exist

International markets :

- The precious commodities like gold, silver etc. are traded in the international market

On the Basis of Time

Very short period market

Short-period market

Long period market

Very long period or Secular period

Alfred Marshall conceived the 'Time' elements

Very short period market :

- It refers to that type of market in which the commodities are perishable
- Supply of commodities cannot be changed at all

- In a very short-period market, the market supply is almost fixed.
- Commodities like vegetables, flower, fish, eggs, fruits, milk, etc.

Short-period Market:

- It refers to that type of market in which commodities are durable and also reproducible.
- The supply of the commodity can be altered.
- The plant and machinery remains unchanged.

Long-period Market :

- It implies that the time available is adequate.
- Changing the supplies by changing even the fixed factors of production.
- The supply of commodities is increased.
- New plant or machinery and the output adjustments can be made accordingly.

Very long-period or secular period :

- The secular movements are recorded in certain factors over a period of time.
- The period is too long.
- The factors include the size of the population, capital supply, supply of raw materials etc.

On the Basis of Nature of Transaction

Spot Market :

- Spot transaction or spot markets.
- The markets where goods are physically transacted on the spot.

Future Market :

- It is related to those transactions which involve contracts of the future date.

On the Basis of Regulation

Regulated Market:

- The transactions are statutorily regulated
- No unfair practices.
- Eg. Produce and stock exchange

Unregulated Market:

- It is also called as free markets
- There are no restrictions in the transactions

On the Basis of Regulation

Wholesale Market :

- The commodities are bought and sold in bulk large quantities

Retail Market :

- The commodities are sold in the small quantities
- This is the market for ultimate consumers

On the Basis of Position of Seller

Primary Market:

- Manufactures of commodities who sells the product to the wholesalers

Secondary Market :

- Wholesalers who sell the products in bulk to the retailers

Terminal Market :

- Retailers sell the products to the ultimate consumers

EQUILIBRIUM UNDER MONOPOLY

Conditions of Equilibrium :

- The Output which yields him Maximum Total Profit

Profit is Maximum when :

- Marginal Cost = Marginal Revenue
- Marginal Cost Curve cuts Marginal Revenue from below under Increasing Cost condition.

EQUILIBRIUM UNDER MONOPOLY

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In Short run, irrespective of the market in which you operate, any firm can earn either :

In the long run it will vary.

PERFECT COMPETITION

Short Run :

Long Run :

MONOPOLY

Short Run :

Long Run :

MONOPOLISTIC COMPETITION

Short Run :

Long Run :

OLIGOPOLY

Loss Minimisation under Perfect Competition :

When is Price Discrimination profitable under Monopoly :

The upward rising portion of ______________________ curve is the short run supply curve.

CHAPTER 8

PRICE MECHANISM

The point where demand curve and supply curve intersects, determines the Equilibrium point. [D = S]

When [D > S] competition among the buyers to buy the product, P rises.

When [S > D] competition among the sellers to clear their stocks, P falls.

QUESTIONS

What will be the impact on equilibrium price and output when there is an increase in demand ?

What will be the impact on equilibrium price and output when there is an increase in supply ?

What will be the impact on equilibrium price and output when there is a decrease in income of the consumer ?

What will be the impact on equilibrium price and output when there is an decrease in number of sellers ?

What will be the impact on equilibrium price and output when there is an increase in consumer income and reduction in price of inputs ?

What will be the impact on equilibrium price and output when there is an increase in future expected price of the commodity and state of technology is backward ?

What will be the impact on equilibrium price and output when there is an decrease in future expected price of the commodity and state of technology is backward ?

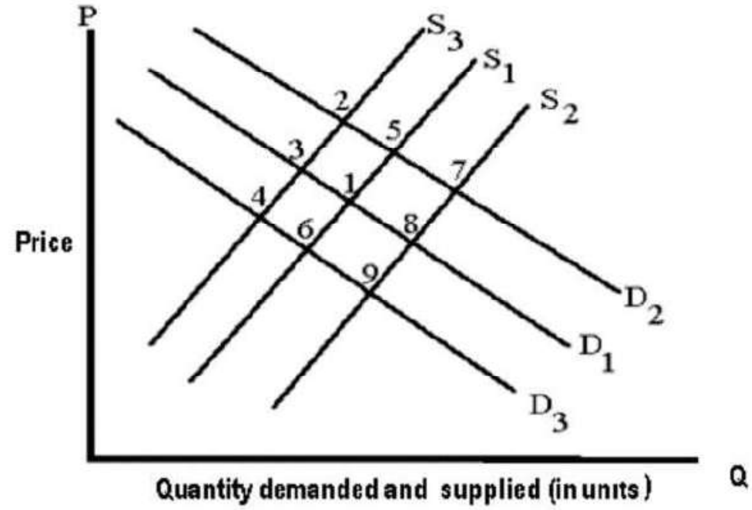
State 3 cases when there will be no impact on equilibrium price even when supply changes ?

State 3 cases when there will be no impact on equilibrium output even when supply changes ?

State a case when equilibrium cannot be determined ?

ILLUSTRATION:

D1 and S1 are the original demand and supply curves. D2, D3, S2 and S3 are possible new demand and supply curves. Starting from initial equilibrium point (1), what point on the graph is most likely to result from each change given in Questions 1 to 4?



1. Assume X is a normal good. Holding everything else constant, assume that income rises and the price of a factor of production also increases. What point in the figure above is most likely to be the new equilibrium price and quantity?
2. We are analyzing the market for good Z. The price of a complement good, good Y, declines. At the same time, there is technological advance in the production of good Z. What point the figure above is most likely to be the new equilibrium price and quantity?
3. Heavy rains in Maharashtra during 2005 and 2006 caused havoc with the rice crop. What point in the figure above is most likely to be the new equilibrium price and quantity?
4. Assume that consumers expect the prices of new cars to significantly increase next year. What point in the figure above is most likely to be the new equilibrium price and quantity?

Let us try answering these questions.

1: When income of people rises, the demand curve will shift to right (becomes D2) as X is given to be a normal good. An increase in the price of factors of production used in the production of the good under consideration will decrease its supply and shift the supply curve to the left to S3. The new demand and supply of X will meet at Point 2.

2: When the price of a complementary good falls, the demand for the good in question increases. Therefore, when price of the complementary good Y falls, the demand curve for Z will move to right and become D2 and due to technological advancement the supply of Z will increase and become S2. The new demand and supply of Z will meet at Point 7.

3: Due to heavy rains, the supply of rice will fall and the new equilibrium point will be 3. It is assumed that there is no change in demand.

4: If prices of cars are expected to increase in future, the demand curve will shift to right. Assuming that the supply remains constant, the new equilibrium point will be 5.

CHAPTER 9

BUSINESS CYCLES

INTRODUCTION

These are examples of business cycles. The first example shows that the UK economy was going through boom during 1920s while the second example of the recent slowdown in China indicates the beginning of a recessionary phase.

PHASES OF BUSINESS CYCLE

We have seen above that business cycles or the periodic booms and slumps in economic activities react the upward and downward movements in economic variables. A typical business cycle has four distinct phases. These are:

1. Expansion (also called Boom or Upswing)
2. Peak or boom or Prosperity
3. Contraction (also called Downswing or Recession)
4. Trough or Depression

The four phases of business cycle are shown in Figure

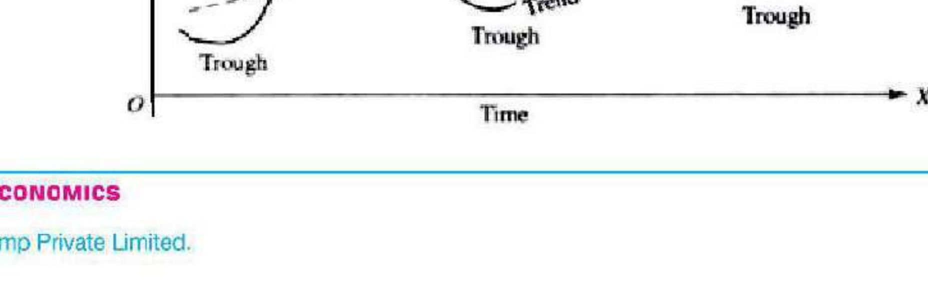


Figure1 Phases of Business Cycle

- **Expansion:** The expansion phase is characterised by increase in national output, employment, aggregate demand, capital and consumer expenditure, sales, profits, rising stock prices and bank credit. There is altogether increasing prosperity and people enjoy high standard of living due to high levels of consumer spending, business confidence, production, factor incomes, profits and investment. The growth rate eventually slows down and reaches its peak.
- **Peak:** The term peak refers to the top or the highest point of the business cycle. In the later stages of expansion, inputs are difficult to find as they are short of their demand and therefore input prices increase. Output prices also rise rapidly leading to increased cost of living and greater strain on fixed income earners. Consumers begin to review their consumption expenditure on housing, durable goods etc. Actual demand stagnates.
- **Contraction:** The economy cannot continue to grow endlessly. As mentioned above, once peak is reached, increase in demand is halted and starts decreasing in certain sectors. During contraction, there is fall in the levels of investment and employment. Producers do not instantaneously recognise the pulse of the economy and continue anticipating higher levels of demand, and therefore, maintain their existing levels of investment and production. This is the turning point and the beginning of recession.

- **Trough and Depression:** Depression is the severe form of recession and is characterized by extremely sluggish economic activities. During this phase of the business cycle, growth rate becomes negative and the level of national income and expenditure declines rapidly. Demand for products and services decreases, prices are at their lowest and decline rapidly forcing firms to shutdown several production facilities. Since companies are unable to sustain their work force, there is mounting unemployment which leaves the consumers with very little disposable income. The great depression of 1929-33 is still cited for the enormous misery and human sufferings it caused.

Recovery: The economy cannot continue to contract endlessly. It reaches the lowest level of economic activity called trough and then starts recovering.

It is very difficult to predict the turning points of business cycles. A leading indicator is a measurable economic factor that changes before the economy starts to follow a particular pattern or trend. In other words, those variables that change before the real output changes are called 'Leading indicators'. Leading indicators often change prior to large economic adjustments. Changes in stock prices, profit margins and profits, indices such as housing, interest rates and prices are generally seen as precursors of upturns or downturns.

Lagging indicators reflect the economy's historical performance and changes in these indicators are observable only after an economic trend or pattern has already occurred. In other words, variables that change after the real output changes are called 'Lagging indicators'. If leading indicators signal the onset of business cycles, lagging indicators confirm these trends. Some examples of lagging indicators are unemployment, corporate profits, labour cost per unit of output, interest rates, the consumer price index and commercial lending activity.

A third type of indicator is coincident indicator. A few examples of coincident indicators are Gross Domestic Product, industrial production, inflation, personal income, retail sales and financial market trends such as stock market prices.

Great Depression of 1930: The world economy suffered the longest, deepest, and the most widespread depression of the 20th century during 1930s. It started in the US and became worldwide. The global GDP fell by around 15% between 1929 and 1932.

Information Technology bubble burst of 2000: Information Technology (IT) bubble or Dot.Com bubble roughly covered the period 1997-2000. During this period, many new Internet–based companies (commonly referred as dot-com companies) were started. The low interest rates in 1998–99 encouraged the start-up internet companies to borrow from the markets.

Recent Example of Business Cycle: Global Economic Crisis (2008-09): The recent global economic crisis owes its origin to US financial markets. Following Information Technology bubble burst of 2000, the US economy went into recession.

FEATURES OF BUSINESS CYCLES

(a) Business cycles occur periodically although they do not exhibit the same regularity.
(b) Business cycles have distinct phases of expansion, peak, contraction and trough.
(c) They are caused by varying factors.
(g) Business cycles are contagious and are international in character.

CAUSES OF BUSINESS CYCLES

Internal Causes:

Fluctuations in Effective Demand:
Fluctuations in Investment:
Variations in government spending:
Macroeconomic policies:
Money Supply:
Psychological factors:

External Causes:
Wars:
Post War Reconstruction:
Technology shocks:
Natural Factors:
Population growth:

RELEVANCE OF BUSINESS CYCLES IN BUSINESS DECISION MAKING

Economy-wide trends can have significant impact on all types businesses. However, it should be kept in mind that business cycles do not affect all sectors uniformly. Some businesses are more vulnerable to changes in the business cycle than others. Businesses whose fortunes are closely linked to the rate of economic growth are referred to as "cyclical" businesses. These include fashion retailers, electrical goods, house-builders, restaurants, advertising, overseas tour operators, construction and other infrastructure firms. During a boom, such businesses see a strong demand for their products but during a slump, they usually suffer a sharp drop in demand.

Understanding what phase of the business cycle an economy is in and what implications the current economic conditions have for their current and future business activity, helps businesses to better anticipate the market and to respond with greater alertness.

MULTIPLE CHOICE QUESTIONS

INTRODUCTION TO MICRO ECONOMICS

1. Find the correct match :

(a) An enquiry into the nature and causes of the wealth of the nation : A.C.Pigou.

(b) Science which deals with wealth : Alfred Marshall.

(c) Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses : Robbins.

(d) The range of our enquiry becomes restricted to that part of social welfare that can be brought directly or indirectly into relation with the measuring rod of money : Adam Smith.

2. The law of scarcity :

(a) does not apply to rich, developed countries.

(b) applies only to the less developed countries.

(c) implies that consumers' wants will be satisfied in a socialistic system.

(d) implies that consumers wants will never be completely satisfied.

3. Who expressed the view that "Economics is neutral between ends"?

(a) Robbins

(b) Marshall

(c) Pigou

(d) Adam Smith

4. Which of the following is the best general definition of the study of Economics?

(a) Inflation and unemployment in a growing economy.

(b) Business decision making under foreign competition.

(c) Individual and social choice in the face of scarcity.

(d) The best way to invest in the stock market.

5. What implication(s) does resource scarcity have for the satisfaction of wants?

(a) Not all wants can be satisfied.

(b) We will never be faced with the need to make choices.

(c) We must develop ways to decrease our individual wants.

(d) The discovery of new natural resources is necessary to increase our ability to satisfy wants.

6. Rational decision making requires that :

(a) one's choices be arrived at logically and without error.

(b) one's choices be consistent with one's goals.

(c) one's choices never vary.

(d) one makes choices that do not involve trade-offs.

7. Economics, according to Lionel Robbins, is a

(a) normative science

(b) applied science

(c) positive science

(d) experimental science

8. Which of the following is a normative statement?

(a) Planned economies allocate resources via government departments.

(b) Most transitional economies have experienced problems of falling output and rising prices over the past decade.

(c) There is a greater degree of consumer sovereignty in market economies than planned economies.
(d) Reducing inequality should be a major priority for mixed economies.

9. Macroeconomics is also called——— economics.

(a) applied
(b) aggregate
(c) experimental
(d) none of the above

10. An example of 'positive' economic analysis would be :

(a) an analysis of the relationship between the price of food and the quantity purchased.
(b) determining how much income each person should be guaranteed.
(c) determining the 'fair' price for food.
(d) deciding how to distribute the output of the economy.

11. Identify the correct statement :

(a) In deductive method, logic proceeds from particular to the general.
(b) Micro and Macro Economics are interdependent.
(c) In a capitalist economy, the economic problems are solved by Planning Commission.
(d) Higher the prices, lower is the quantity demanded of a product is a normative statement.

12. A study of how increases in the corporate income tax rate will affect the national unemployment rate is an example of

(a) macro-economics.
(b) descriptive economics.
(c) micro-economics.
(d) normative economics.

13. Which of the following does not suggest a macro approach for India?

(a) Determining the GNP of India.
(b) Finding the causes of failure of X and co.
(c) Identifying the causes of inflation in India.
(d) Analyse the causes of failure of industry in providing large scale employment.

14. Economic goods are considered scarce resources because they

(a) cannot be increased in quantity.
(b) do not exist in adequate quantity to satisfy social requirements.
(c) are of primary importance in satisfying social requirements.
(d) are limited to man made goods.

15. From the national point of view which of the following indicates micro approach?

(a) Per capita income of India.
(b) Underemployment in agricultural sector.
(c) Lock out in TELCO.
(d) Total savings in India.

16. In a free market economy the allocation or resources is determined by

(a) votes taken by consumers
(b) a central planning authority.
(c) consumer preference.
(d) the level of profits of firms.

17. A capitalist economy uses ____________________ as the principal means of allocating resources.

(a) demand
(b) supply
(c) efficiency
(d) prices

18. In a free market economy, when consumers increase their purchase of a good and the level of ________exceeds ______________ then prices tend to rise.

(a) demand, supply
(b) supply, demand
(c) prices, demand
(d) profits, supply.

19. Which of the following is considered as a disadvantage of allocating resources using the market system?

(a) Income will tend to be unevenly distributed.
(b) People do not get goods of their choice.
(c) Men of Initiative and enterprise are not rewarded.
(d) Profits will tend to be low.

20. In a mixed economy,

(a) all economic decisions are taken by the central authority.
(b) all economic decisions are taken by private entrepreneurs.
(c) economic decisions are partly taken by the state and partly by the private entrepreneurs
(d) none of the above.

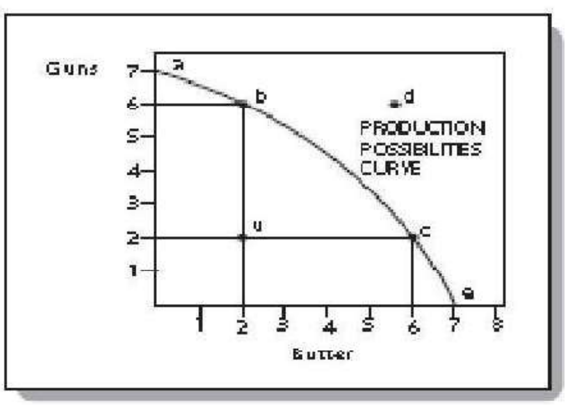
21. The central problem in economics is that of

(a) comparing the success of command versus market economies.
(b) guaranteeing that production occurs in the most efficient manner.
(c) guaranteeing a minimum level of income for every citizen.
(d) allocating scarce resources in such a manner that society's unlimited needs or wants are satisfied in the best possible manner.

Use the figure below to answer question 22.

22. Which of the following bundles of goods cannot be produced with the resources the economy currently has?

(a) a
(b) b
(c) c
(d) d



23. An economy achieves "productive efficiency" when :

(a) resources are employed in their most highly valued uses.

(b) the best resources are employed.

(c) the total number of goods produced is greatest.

(d) goods and services are produced at least cost and no resources are wasted.

Use the figure below to answer questions 24-26.

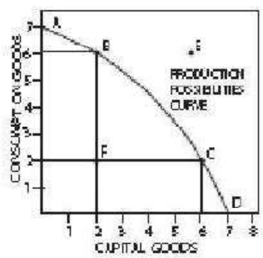
24. Which point on the PPF shows a "productively efficient" level of output?

(a) A

(b) B

(c) C

(d) All of the above.



25. Which of the following clearly represents a movement toward greater productive efficiency?

(a) A movement from point A to point B.

(b) A movement from point C to point D.

(c) A movement from point F to point C.

(d) A movement from point E to point B.

26. Which of the following illustrates a decrease in unemployment using the PPF?

(a) A movement down along the PPF.

(b) A rightward shift of the PPF.

(c) A movement from a point on the PPF to a point inside the PPF.

(d) A movement from a point inside the PPF to a point on the PPF.

27. If the PPF is linear, i.e., a straight line, which of the following is true?

(a) As the production of a good increases, the opportunity cost of that good rises.

(b) As the production of a good increases, the opportunity cost of that good falls.

(c) Opportunity costs are constant.

(d) The economy is not at full employment when operating on the PPF.

28. Periods of less than full employment correspond to

(a) points outside the PPF.

(b) points inside the PPF.

(c) points on the PPF.

(d) either points inside or outside the PPF.

29. Which of the following would not result in an rightward shift of the PPF?

(a) an increase in investment in capital stock.

(b) a reduction in the labour unemployment rate.

(c) the discovery of new oil deposits in India.

(d) an increase in the number of people taking management training courses.

30. Choice is created by the

(a) abundance of resources

(b) urgency of needs

(c) non-availability of resources

(d) scarcity of resources

31. Which is one of the future consequences of an increase in the current level of consumption in the India?

(a) Slower economic growth in the future.

(b) Greater economic growth in the future.

(c) No change in our economic growth rate.

(d) Greater capital accumulation in the future.

Use the figure at right to answer questions 32-38.

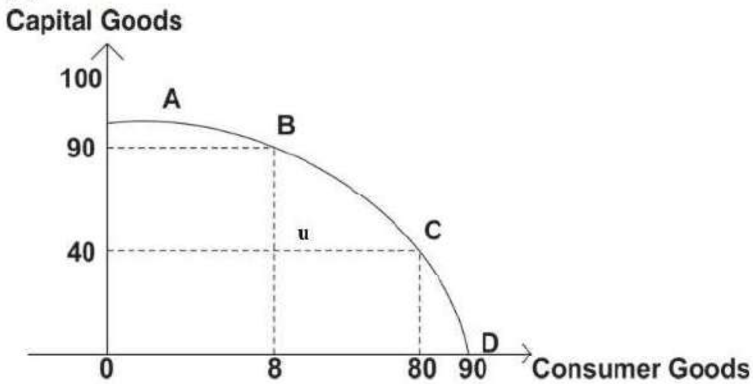
32. Which of the following represents the concept of trade-offs?

(a) A movement from point A to point B.

(b) A movement from point U to point C.

(c) Point W.

(d) Point U.



33. Which of the following would not move the PPF for this economy closer to point W?

(a) A decrease in the amount of unemployed labour resources.

(b) A shift in preferences toward greater capital formation.

(c) An improvement in the overall level of technology.

(d) An increase in the population growth rate.

34. Moving from point A to point D, what happens to the opportunity cost of producing each additional unit of consumer goods?

(a) It increases.

(b) It decreases.

(c) It remains constant.

(d) It increase up to point B, then falls thereafter.

35. What is the opportunity cost of moving from point A to point B?

(a) 100 units of capital goods.

(b) 8 units of consumer goods.

(c) 90 units of capital goods.

(d) 10 units of capital goods.

36. Unemployment or underemployment of one or more resources is illustrated by production at point :

(a) A.

(b) C.
(c) U.
(d) W.

37. Which of the following is a reason for the curvature or bowed-out shape of the PPF?

(a) Falling unemployment as we move along the curve.
(b) The economy having to produce less of one good in order to produce more of another good.
(c) Opportunity costs increase as more of a good is produced.
(d) None of the above.

38. Which of the following is a reason for the negative slope of the PPF?

(a) The inverse relationship between the use of technology and the use of natural resources.
(b) Scarcity at any point of time due to limited amounts of productive resources.
(c) Resource specialisation.
(d) Increasing opportunity costs.

39. Capital intensive technique would get chosen in a

(a) labour surplus economy.
(b) capital surplus economy.
(c) developed economy.
(d) developing economy.

40. Labour intensive technique would get chosen in a

(a) labour surplus economy.
(b) capital surplus economy.
(c) developed economy.
(d) developing economy.

41. Ram : My corn harvest this year is poor.

Krishan : Don't worry. Price increases will compensate for the fall in quantity supplied.
Vinod : Climate affects crop yields. Some years are bad, others are good.
Madhur : The Government ought to guarantee that our income will not fall.
In this conversation, the normative statement is made by

(a) Ram
(b) Krishan
(c) Vinod
(d) Madhur

42. Consider the following and decide which, if any, economy is without scarcity :

(a) The pre-independent Indian economy, where most people were farmers.
(b) A mythical economy where everybody is a billionaire.
(c) Any economy where income is distributed equally among its people.
(d) None of the above.

43. Which of the following is not a subject matter of micro-economies?

(a) The price of mangoes.
(b) The cost of producing a fire truck for the fire department of Delhi, India.
(c) The quantity of mangoes produced for the mangoes market.
(d) The national economy's annual rate of growth.

44. Which of the following is not one of the four central questions that the study of economics is supposed to answer?

(a) Who produces what?

(b) When are goods produced?

(c) Who consumes what?

(d) How are goods produced?

45. If the marginal (additional) opportunity cost is a constant, then the PPC would be

(a) convex.

(b) straight line.

(c) backward bending.

(d) concave.

46. Larger production of goods would lead to higher production in future.

(a) consumer goods

(b) capital goods

(c) agricultural goods

(d) public goods

47. The branch of economic theory that deals with the problem of allocation of resources is

(a) micro-economic theory.

(b) macro-economic theory.

(c) econometrics.

(d) none of the above.

48. Which of the following is likely to cause an inward shift in a country's PPC?

(a) Earthquake destroying resources of the country.

(b) Scientists discovering new machines.

(c) Workers getting jobs in the new metro – project.

(d) The country finds new reserves of crude oil.

49. The various combinations of goods that can be produced in any economy when it uses its available resources and technology efficiently are depicted by

(a) demand curve.

(b) production curve.

(c) supply curve.

(d) production possibilities curve.

50. In an economy people have the freedom to buy or not to buy the goods offered in the market place, and this freedom to choose what they buy dictates what producers will ultimately produce. The key term defining this condition is

(a) economic power of choice.

(b) consumer sovereignty.

(c) positive economy.

(d) producer sovereignty.

51. The term 'Economics' owes its origin to the Greek word

a. Aikonomia

b. Wikonomia

c. Oikonomia

d. None of the above

52. Oikonomia means

a. industry

b. Management of household

c. services

d. none of these

53. Adam smith published his masterpiece "An Enquiry into the Nature and Causes of Wealth of Nations" in the year

a. 1776

b. 1786

c. 1756

d. 1766

54. Adam Smith defined Economics in term of:

a. The science of welfare

b. The science of scarcity

c. The science of wealth

d. The science of wealth and welfare

55. Lionel Robbins Published his famous book "Nature and Significance of Economics" in the year

a. 1935

b. 1933

c. 1931

d. 1937

56. According to —————— Economics is the "the study of how in a civilized society one obtains the share of what other people have produced and of how the total product of society changes and is determined"

a. Jacob Viner

b. Henry Smith

c. Pigou

d. Paul A. Samuelson

57. 'Economics is what Economists do' is given by

a. Jacob Viner

b. Henry Smith

c. Pigou

d. Paul A. Samuelson

58. The economic system in which all the means of production are owned and controlled by private individuals for profit.

a. socialism

b. capitalism

c. mixed economy

d. communism

59. Economics may be defined as the science that explains _____________.

a. the choices that we make as we cope with scarcity

b. the decisions made by politicians

c. the decisions made by households

d. all human behavior

60. Scarcity is a situation in which ______________________.

a. wants exceed the resources available to satisfy them

b. something is being wasted

c. people are poor

d. none of the above

61. Under inductive method, the logic proceeds from:

a. general to particular
b. positive to normative
c. normative to positive
d. particular to general

62. When productivity increases ______________________.

a. prices rise
b. living standards improve
c. there are fewer good jobs
d. living standards deteriorate

63. Macro Economics is the study of _________________________.

a. all aspects of scarcity
b. the national economy and the global economy as a whole
c. big businesses
d. the decisions of individual businesses and people

64. The task of economic science is to __________________________.

a. save the earth from the overuse of natural resources
b. help us to understand how the economic world works
c. tell us what is good for us
d. make moral choices about things like drugs

65. Who among the following gave the definition of Economics as the "Science which deals with wealth"?

a. J.M. Keynes
b. H.C. Dickinson
c. Henry Smith
d. J. B. Say

66. Production Possibilities curve is also known as

a. demand curve
b. supply curve
c. indifference curve
d. transformation curve

67. Socialist economy is a

a. planned economy
b. mixed economy
c. profit oriented economy
d. none of these

68. Freedom of choice is the advantage of

a. socialism
b. capitalism
c. mixed economy
d. communism

69. Economists regard decision making as important because:

a) The resources required to satisfy our unlimited wants and needs are finite, or scarce.

b) It is crucial to understand how we can best allocate our scarce resources to satisfy society's unlimited wants and needs.

c) Resources have alternative uses.

d) All the above.

70. Business Economics is

a) Abstract and applies the tools of Microeconomics.
b) Involves practical application of economic theory in business decision making.
c) Incorporates tools from multiple disciplines.
d) (b) and (c) above.

71. In Economics, we use the term scarcity to mean;

a) Absolute scarcity and lack of resources in less developed countries.
b) Relative scarcity i.e. scarcity in relation to the wants of the society.
c) Scarcity during times of business failure and natural calamities.
d) Scarcity caused on account of excessive consumption by the rich.

72. What implication(s) does resource scarcity have for the satisfaction of wants?

a) Not all wants can be satisfied.
b) We will never be faced with the need to make choices.
c) We must develop ways to decrease our individual wants.
d) The discovery of new natural resources is necessary to increase our ability to satisfy wants.

73. Which of the following is a normative statement?

a) Planned economies allocate resources via government departments.
b) Most transitional economies have experienced problems of falling output and rising prices over the past decade.
c) There is a greater degree of consumer sovereignty in market economies than planned economies.
d) Reducing inequality should be a major priority for mixed economies.

74. In every economic system, scarcity imposes limitations on

a) households, business firms, governments, and the nation as a whole.
b) households and business firms, but not the governments.
c) local and state governments, but not the federal government.
d) households and governments, but not business firms.
e) business firms, governments, and the nation as a whole.

75. Which of the following is a normative economic statement?

a) Unemployment rate decreases with industrialization
b) Economics is a social science that studies human behavior.
c) The minimum wage should be raised to Rs. 200/- per day
d) India spends a huge amount of money on national defense.

76. Which of the following is not within the scope of Business Economics?

a) Capital Budgeting b) Risk Analysis
c) Business Cycles d) Accounting Standards

77. The economic system in which all the means of production are owned and controlled by private individuals for profit.

a) Socialism b) Capitalism
c) Mixed economy d) Communism

78. Macro Economics is the study of ________________________.

a) all aspects of scarcity.
b) the national economy and the global economy as a whole.
c) big businesses.
d) the decisions of individual businesses and people.

79. Freedom of choice is the advantage of

a) Socialism b) Capitalism

c) Communism d) None of the above

80. Exploitation and inequality are minimal under:

a) Socialism b) Capitalism

c) Mixed economy d) None of the above

81. Administered prices refer to:

a) Prices determined by forces of demand and supply

b) Prices determined by sellers in the market

c) Prices determined by an external authority which is usually the government

d) None of the above

ANSWERS

1.	(c)	2.	(d)	3.	(a)	4.	(c)	5.	(a)	6.	(b)
7.	(c)	8.	(d)	9.	(b)	10.	(a)	11.	(b)	12.	(a)
13.	(b)	14.	(b)	15.	(c)	16.	(c)	17.	(d)	18.	(a)
19.	(a)	20.	(c)	21.	(d)	22.	(d)	23.	(d)	24.	(d)
25.	(c)	26.	(d)	27.	(c)	28.	(b)	29.	(b)	30.	(d)
31.	(a)	32.	(a)	33.	(a)	34.	(a)	35.	(d)	36.	(c)
37.	(c)	38.	(b)	39.	(b)	40.	(a)	41.	(d)	42.	(d)
43.	(d)	44.	(b)	45.	(b)	46.	(b)	47.	(a)	48.	(a)
49.	(d)	50.	(b)	51.	(c)	52.	(b)	53.	(a)	54.	(c)
55.	(c)	56.	(b)	57.	(a)	58.	(b)	59.	(a)	60.	(a)
61.	(d)	62.	(b)	63.	(b)	64.	(b)	65.	(d)	66.	(d)
67.	(a)	68.	(b)								

69. (d) 70. (d) 71. (b) 72. (a) 73. (d) 74. (a) 75. (c)

76. (d) 77. (b) 78. (b) 79. (b) 80. (a) 81. (c)

THEORY OF DEMAND AND SUPPLY

1. Demand for a commodity refers to :

(a) desire for the commodity.
(b) need for the commodity.
(c) quantity demanded of that commodity.
(d) quantity of the commodity demanded at a certain price during any particular period of time.

2. Contraction of demand is the result of :

(a) decrease in the number of consumers.
(b) increase in the price of the good concerned.
(c) increase in the prices of other goods.
(d) decrease in the income of purchasers.

3. All but one of the following are assumed to remain the same while drawing an individual's demand curve for a commodity. Which one is it?

(a) The preference of the individual.
(b) His monetary income.
(c) Price.
(d) Price of related goods.

4. Which of the following pairs of goods is an example of substitutes?

(a) Tea and sugar.
(b) Tea and coffee.
(c) Pen and ink.
(d) Shirt and trousers.

5. 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 :

(a) 0
(b) 1
(c) 1.5
(d) 2

6. The Law of Demand, assuming other things to remain constant, establishes the relationship between :

(a) income of the consumer and the quantity of a good demanded by him.
(b) price of a good and the quantity demanded.
(c) price of a good and the demand for its substitute.
(d) quantity demanded of a good and the relative prices of its complementary goods.

7. Identify the factor which generally keeps the price-elasticity of demand for a good low :

(a) Variety of uses for that good.
(b) Its low price.
(c) Close substitutes for that good.
(d) High proportion of the consumer's income spent on it.

8. Identify the coefficient of price-elasticity of demand when the percentage increase in the quantity of a good demanded is smaller than the percentage fall in its price :

(a) Equal to one.
(b) Greater than one.
(c) Smaller than one.

(d) Zero.

9. In the case of an inferior good, the income elasticity of demand is :

(a) positive.

(b) zero.

(c) negative.

(d) infinite.

10. If the demand for a good is inelastic, an increase in its price will cause the total expenditure of the consumers of the good to :

(a) remain the same.

(b) increase.

(c) decrease.

(d) any of these.

11. If regardless of changes in its price, the quantity demanded of a good remains unchanged, then the demand curve for the good will be :

(a) horizontal.

(b) vertical.

(c) positively sloped.

(d) negatively sloped.

12. Suppose the price of Pepsi increases, we will expect the demand curve of Coca Cola to:

(a) shift towards left.

(b) shift towards right

(c) initially shift towards left and then to right.

(d) remain at the same level.

13. All of the following are determinants of demand except :

(a) tastes and preferences.

(b) quantity supplied.

(c) income.

(d) price of related goods.

14. A movement along the demand curve for soft drinks is best described as :

(a) An increase in demand.

(b) A decrease in demand.

(c) A change in quantity demanded.

(d) A change in demand.

15. If the price of Pepsi decreases relative to the price of Coke and 7-UP, the demand for :

(a) coke will decrease.

(b) 7-Up will decrease.

(c) coke and 7-UP will increase.

(d) coke and 7-Up will decrease.

16. If a good is a luxury, its income elasticity of demand is :

(a) positive and less than 1.

(b) negative but greater than -1.

(c) positive and greater than 1.

(d) zero.

17. The price of hot dogs increases by 22% and the quantity of hot dogs demanded falls by 25%. This indicates that demand for hot dogs is :

(a) elastic.

(b) inelastic.

(c) unitarily elastic.

(d) perfectly elastic.

18. If the quantity demanded of mutton increases by 5% when the price of chicken increases by 20%, the cross-price elasticity of demand between mutton and chicken is

(a) -0.25

(b) 0.25

(c) -4

(d) 4

19. Given the following four possibilities, which one results in an increase in total consumer expenditure?

(a) demand is unitary elastic and price falls.

(b) demand is elastic and price rises.

(c) demand is inelastic and price falls.

(d) demand is inelastic and prices rises.

20. The price elasticity of demand for hamburger is

(a) the change in the quantity demanded of hamburger when hamburger increases by 30 paise per rupee.

(b) the percentage increase in the quantity demanded of hamburger when the price of hamburger falls by 1 per cent per rupee.

(c) the increase in the demand for hamburger when the price of hamburger falls by 10 per cent per rupee.

(d) the decrease in the quantity demanded of hamburger when the price of hamburger falls by 1 per cent per rupee.

21. The price elasticity of demand is defined as the responsiveness of :

(a) price to a change in quantity demanded.

(b) quantity demanded to a change in price.

(c) price to a change in income.

(d) quantity demanded to a change in income.

22. Suppose the price of movies seen at a theater rises from Rs. 120 per person to Rs. 200 per person. The theater manager observes that the rise in price causes attendance at a given movie to fall from 300 persons to 200 persons. What is the price elasticity of demand for movies? (Use Arc Elasticity Method)

(a) .5

(b) .8

(c) 1.0

(d) 1.2

23. Suppose a department store has a sale on its silverware. If the price of a plate-setting is reduced from Rs. 300 to Rs. 200 and the quantity demanded increases from 3,000 platesettings to 5,000 plate-settings, what is the price elasticity of demand for silverware? (Use Arc Elasticity Method)

(a) .8

(b) 1.0

(c) 1.25

(d) 1.50

24. A discount store has a special offer on CDs. It reduces their price from Rs. 150 to Rs. 100. Suppose the store manager observes that the quantity demanded increases from 700 CDs to 1,300 CDs. What is the price elasticity of demand for CDs? (Use Arc Elasticity Method)

(a) .8

(b) 1.0

(c) 1.25

(d) 1.50

25. If the local pizzeria raises the price of a medium pizza from Rs. 60 to Rs. 100 and quantity demanded falls from 700 pizzas a night to 100 pizzas a night, the price elasticity of demand for pizzas is :(Use Arc Elasticity Method)

(a) .67

(b) 1.5

(c) 2.0

(d) 3.0

26. If electricity demand is inelastic, and electricity charges increase, which of the following is likely to occur?

(a) Quantity demanded will fall by a relatively large amount.

(b) Quantity demanded will fall by a relatively small amount.

(c) Quantity demanded will rise in the short run, but fall in the long run.

(d) Quantity demanded will fall in the short run, but rise in the long run.

27. Suppose the demand for meals at a medium-priced restaurant is elastic. If the management of the restaurant is considering raising prices, it can expect a relatively :

(a) large fall in quantity demanded.

(b) large fall in demand.

(c) small fall in quantity demanded.

(d) small fall in demand.

28. Point elasticity is useful for which of the following situations?

(a) The bookstore is considering doubling the price of notebooks.

(b) A restaurant is considering lowering the price of its most expensive dishes by 50 percent.

(c) An auto producer is interested in determining the response of consumers to the price of cars being lowered by Rs. 100.

(d) None of the above.

29. A decrease in price will result in an increase in total revenue if :

(a) the percentage change in quantity demanded in less than the percentage change in price.

(b) the percentage change in quantity demanded is greater than the percentage change in price.

(c) demand is inelastic.

(d) the consumer is operating along a linear demand curve at a point at which the price is very low and the quantity demanded is very high.

30. An increase in price will result in an increase in total revenue if :

(a) the percentage change in quantity demanded is less than the percentage change in price.

(b) the percentage change in quantity demanded is greater than the percentage change in price.

(c) demand is elastic.

(d) the consumer is operating along a linear demand curve at a point at which the price is very high and the quantity demanded is very low.

31. Demand for a good will tend to be more elastic if it exhibits which of the following characteristics?

(a) It represents a small part of the consumer's income.

(b) The good has many substitutes available.

(c) It is a necessity (as opposed to a luxury).

(d) There is little time for the consumer to adjust to the price change.

32. Demand for a good will tend to be more inelastic if it exhibits which of the following characteristics?

(a) The good has many substitutes.

(b) The good is a luxury (as opposed to a necessity).

(c) The good is a small part of the consumer's income.

(d) There is a great deal of time for the consumer to adjust to the change in prices.

33. Suppose a consumer's income increases from Rs. 30,000 to Rs. 36,000. As a result, the consumer increases her purchases of compact discs (CDs) from 25 CDs to 30 CDs. What is the consumer's income elasticity of demand for CDs? (Use Arc Elasticity Method)

(a) 0.5

(b) 1.0

(c) 1.5

(d) 2.0

34. Total utility is maximum when :

(a) marginal utility is zero.

(b) marginal utility is at its highest point.

(c) marginal utility is equal to average utility.

(d) average utility is maximum.

35. Which one is not an assumption of the theory of demand based on analysis of indifference curves?

(a) Given scale of preferences as between different combinations of two goods.

(b) Diminishing marginal rate of substitution.

(c) Constant marginal utility of money.

(d) Consumers would always prefer more of a particular good to less of it, other things remaining the same.

36. The consumer is in equilibrium at a point where the budget line :

(a) is above an indifference curve.

(b) is below an indifference curve.

(c) is tangent to an indifference curve.

(d) cuts an indifference curve.

37. An indifference curve slopes down towards right since more of one commodity and less of another result in :

(a) same satisfaction.

(b) greater satisfaction.

(c) maximum satisfaction.

(d) decreasing expenditure.

38. Which of the following statements is incorrect?

(a) An indifference curve must be downward-sloping to the right.

(b) convexity of a curve implies that the slope of the curve diminishes as one moves from left to right.

(c) The income elasticity for inferior goods to a consumer is negative.

(d) The total effect of a change in the price of a good on its quantity demanded is called the price effect.

39. The second glass of lemonade gives lesser satisfaction to a thirsty boy. This is a clear case of

(a) Law of demand.

(b) Law of diminishing returns.

(c) Law of diminishing utility.

(d) Law of supply.

40. The consumer is in equilibrium when the following condition is satisfied :

(a) $\frac{MU_x}{MU_y} > \frac{P_x}{P_y}$

(b) $\frac{MU_x}{MU_y} < \frac{P_x}{P_y}$

(c) $\frac{MU_x}{MU_y} = \frac{P_x}{P_y}$

(d) None of the above.

41. In the case of a Giffen good, the demand curve will be :

(a) horizontal.

(b) downward-sloping to the right.

(c) vertical.

(d) upward-sloping to the right.

42. By consumer surplus, economists mean

(a) the area inside the budget line.

(b) the area between the average revenue and marginal revenue curves.

(c) the different between the maximum amount a person is willing to pay for a good and its market price.

(d) none of the above.

43. Which of the following is a property of an indifference curve?

(a) it is convex to the origin.

(b) the marginal rate of substitution is constant as you move along an indifference curve.

(c) marginal utility is constant as you move along an indifference curve.

(d) total utility is greatest where the 45 degree line cuts the indifference curve.

44. When economists speak of the utility of a certain good, they are referring to

(a) the demand for the good.

(b) the usefulness of the good in consumption.

(c) the satisfaction derived from consuming the good.

(d) the rate at which consumers are willing to exchange one good for another.

45. A vertical supply curve parallel to Y axis implies that the elasticity of supply is :

(a) Zero

(b) Infinity

(c) Equal to one

(d) Greater than zero but less than infinity.

46. The supply of a good refers to :

(a) actual production of the good.

(b) total existing stock of the good.

(c) stock available for sale.

(d) amount of the good offered for sale at a particular price per unit of time.

47. An increase in the supply of a good is caused by :

(a) improvements in its technology.

(b) fall in the prices of other goods.

(c) fall in the prices of factors of production.
(d) all of the above.

48. Elasticity of supply refers to the degree of responsiveness of supply of a good to changes in its :

(a) demand.
(b) price.
(c) cost of production.
(d) state of technology.

49. A horizontal supply curve parallel to the quantity axis implies that the elasticity of supply is :

(a) zero.
(b) infinite.
(c) equal to one.
(d) greater than zero but less than one.

50. Contraction of supply is the result of :

(a) decrease in the number of producers.
(b) decrease in the price of the good concern.
(c) increase in the prices of other goods.
(d) decrease in the outlay of sellers.

51. Conspicuous goods are also known as

a. prestige goods
b. snob goods
c. veblen goods
d. all of the above

52. The quantity purchased remains constant irrespective of the change in income. This is known as

a. negative income elasticity of demand
b. income elasticity of demand less than one
c. zero income elasticity of demand
d. income elasticity of demand is greater than one

53. As income increases, the consumer will go in for superior goods and consequently the demand for inferior goods will fall. This means:

a. income elasticity of demand less than one
b. negative income elasticity of demand
c. zero income elasticity of demand
d. unitary income elasticity of demand

54. When income increases the money spent on necessaries of life may not increase in the same proportion, This means

a. income elasticity of demand is zero
b. income elasticity of demand is one
c. income elasticity of demand is greater than one
d. income elasticity of demand is less than one

55. The luxury goods like jewellery and fancy articles will have

a. low income elasticity of demand
b. high income elasticity of demand
c. zero income elasticity of demand
d. none of the above

56. A good which cannot be consumed more than once is known as

a. durable good

b. non-durable good

c. producer good

d. none of the above

57. A relative price is

a. price expressed in terms of money

b. what you get paid for babysitting your cousin

c. the ratio of one money price to another

d. equal to a money price

58. The quantity demanded of a good or service is the amount that

a. consumer plan to buy during a given time period at a given price

b. firms are willing to sell during a given time period at a given price

c. a consumer would like to buy but might not be able to afford

d. is actually bought during a given time period at a given price.

59. Demand is the

a. unlimited wants of consumers

b. entire relationship between the quantity demanded and the price of a good

c. willingness to pay for a good if income is larger enough

d. ability to pay for a good

60. If, as people's income increases, the quantity demanded of a good decreases, the good is called

a. a substitute

b. a normal good

c. an inferior good

d. a complement

61. The price of tomatoes increases and people buy tomato puree. You infer that tomato puree and tomatoes are

a. normal goods

b. complements

c. substitutes

d. inferior goods

62. Chicken and fish are substitutes. If the price of chicken increases, the demand for fish will

a. increase or decrease but the demand curve for chicken will not change

b. increase and the demand curve for fish will shift rightwards.

c. not change but there will be a movement along the demand curve for fish.

d. decrease and the demand curve for fish will shift leftwards.

63. Potato chips and popcorn are substitutes. A rise in the price of potato chips will ———— the demand for popcorn and the quantity of popcorn will ————

a. increase; increase

b. increase; decrease

c. decrease; decrease

d. decrease; increase

64. If the price of Orange Juice increases, the demand for Apple Juice will ______________.

a. increase

b. decrease
c. remain the same.
d. become negative.

65. An increase in the demand for computers, other things remaining same, will:

a. Increase the number of computers bought.
b. Decrease the price but increase the number of computers bought.
c. Increase the price of computers.
d. Increase the price and number of computers bought.

66. When total demand for a commodity whose price has fallen increases, it is due to:

a. income effect.
b. substitution effect
c. complementary effect
d. price effect

67. With a fall in the price of a commodity:

a. consumer's real income increases
b. consumer's real income decreases
c. there is no change in the real income of the consumer
d. none of the above

68. With an increase in the price of diamond, the quantity demanded also increases. This is because it is a:

a. substitute good
b. complementary good
c. conspicuous good
d. none of the above

69. Goods that exhibit direct price-demand relationship are called:

a. Giffen goods
b. Complementary goods
c. Substitute goods
d. None of the above

70. In Economics, when demand for a commodity increases with a fall in its price it is known as:

a. contraction of demand
b. expansion of demand
c. no change in demand
d. none of the above

71. The quantity supplied of a good or service is the amount that

a. is actually bought during a given time period at a given price
b. producers wish they could sell at a higher price
c. producers plan to sell during a given time period at a given price
d. people are willing to buy during a given time period at a given price

72. Supply is the

a. limited resources that are available with the seller
b. cost of producing a good
c. entire relationship between the quantity supplied and the price of good.
d. Willingness to produce a good if the technology to produce it becomes available.

73. In the book market, the supply of books will decrease if any of the following occurs except

a. a decrease in the number of book publishers

b. a decrease in the price of the book

c. an increase in the future expected price of the book

d. an increase in the price of paper used.

74. If price of computers increases by 10% and supply increases by 25%. The elasticity of supply is :

a. 2.5

b. 0.4

c. (-) 2.5

d. (-) 0.4

75. An increase in the number of sellers of bikes will increase the

a. the price of a bike

b. demand for bikes

c. the supply of bikes

d. demand for helmets

76. If the supply of bottled water decreases, the equilibrium price ———————— and the equilibrium quantity ————————————

a. increases ; decreases

b. decreases; increases

c. decreases; decreases

d. increases; increases

77. A decrease in the demand for cameras, other things remaining the same will

a. increase the number of cameras bought

b. decrease the price but increase the number of cameras bought

c. increase the price of cameras

d. decrease the price and the number of cameras bought.

78. If good growing conditions increases the supply of strawberries and hot weather increases the demand for strawberries, the quantity of strawberries bought

a. increases and the price might rise, fall or not change

b. doesn't change but the price rises

c. doesn't change but the price falls

d. increases and the price rises.

79. Comforts lies between

a. inferior goods and necessaries

b. luxuries and inferior goods

c. necessaries and luxuries

d. none of the above

80. In a very short period, the supply

a. can be changed

b. can not be changed

c. can be increased

d. none of the above

81. When supply curve moves to the left, it means

a. Smaller supply

b. larger supply

c. constant supply

d. none of the above

82. When supply curve moves to right, it means

a. supply increases

b. supply decreases

c. supply remains constant

d. none of the above

83. The elasticity of supply is defined as the

a. responsiveness of the quantity supplied of a good to a change in its price

b. responsiveness of the quantity supplied of a good without change in its price

c. responsiveness of the quantity demanded of a good to a change in its price

d. responsiveness of the quantity demanded of a good without change in its price

84. Elasticity of supply is measured by dividing the percentage change in quantity supplied of a good by ————————

a. Percentage change in income

b. Percentage change in quantity demanded of goods

c. Percentage change in price

d. Percentage change in taste and preference

85. Elasticity of supply is zero means

a. perfectly inelastic supply

b. perfectly elastic supply

c. imperfectly elastic supply

d. none of the above

86. Elasticity of supply is greater than one when

a. proportionate change in quantity supplied is more than the proportionate change in price.

b. proportionate change in price is greater than the proportionate change in quantity supplied.

c. change in price and quantity supplied are equal

d. None of the above

87. If the quantity supplied is exactly equal to the relative change in price then the elasticity of supply is

a. less than one

b. greater than one

c. one

d. none of the above

88. The price of a commodity decreases from Rs. 6 to Rs. 4 and the quantity demanded of the good increases from 10 units to 15 units, find the coefficient of price elasticity. (Use Point Elasticity Method)

a. 1.5

b. 2.5

c. -1.5

d. 0.5

89. The supply function is given as Q= -100 + 10P. Find the elasticity using point method, when price is Rs. 15.

a. 4

b. -3

c. -5

d. 3

90. Which of the following goods is likely to have perfectly inelastic demand?

a. Car
b. Salt
c. Cabbage
d. Sugar

91. The way in which rational consumers allocate their expenditure on goods and services is best described by ___________________________

a. the law of diminishing marginal utility
b. the law of demand
c. the theory of value
d. the marginal rate of substitution

92. The aim of the consumer in allocating his income is to ————

a. maximize his total utility
b. maximize his marginal utility
c. to buy the goods he wants most whatever the price
d. to buy the goods which he expects to be short in supply

93. At higher prices people demand more of certain goods not for their worth but for their prestige value – This is called

a. veblen effect
b. giffens paradox
c. speculative effect
d. none of the above

94. If the price of air-conditioner increases from Rs. 30,000 to Rs. 30,010 and resultant change in demand is negligible, we use the measure of __________ to measure elasticity.

a. point elasticity
b. perfect elasticity
c. perfect inelasticity
d. price elasticity

95. If the percentage change in supply is less than the percentage change in price it is called

a. unit elasticity of supply
b. perfectly elastic
c. more elastic supply
d. inelastic supply

96. The supply curve shifts to the right because of——————

a. improved technology
b. increased price of factors of production
c. increased excise duty
d. all of the above

97. Which of the following statements is correct?

a. When the price falls the quantity demanded falls
b. Seasonal changes do not affect the supply of a commodity
c. Taxes and subsidies do not influence the supply of the commodity
d. With lower cost, it is profitable to supply more of the commodity.

98. If the demand is more than supply, then the pressure on price will be

a. upward

b. downward

c. constant

d. none of the above

99. The supply curve for perishable commodities is————————

a. elastic

b. inelastic

c. perfectly elastic

d. perfectly inelastic

100. Supply is a ___________ concept.

a. stock

b. flow and stock

c. flow

d. none of the above

101. The supply function is given as Q= -100 + 10P. Find the elasticity using point method, when price is Rs. 15.

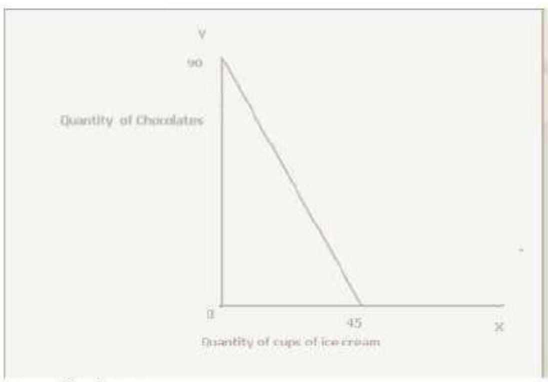
(a) 4

(b) -3

(c) -5

(d) 3

102. The figure below shows the budget constraint of a consumer with an income of Rs. 900/- to spend on two commodities, namely ice cream and chocolates.



The prices of these two commodities respectively are:

(a) RS. 10 and Rs. 20

(b) Rs. 20 and Rs. 10

(c) Rs. 10 and Rs. 5

(d) Any of the above.

103. Which of the following statements about price elasticity of demand is correct?

(a) Price elasticity of demand is a measure of how much the quantity demanded of a good responds to a change in the price of that good.

(b) Price elasticity of demand is computed as the percentage change in quantity demanded divided by the percentage change in price.

(c) Price elasticity of demand in the long run would be different from that of the short run.

(d) All the above.

104. The cross elasticity between Rye bread and Whole Wheat bread is expected to be:

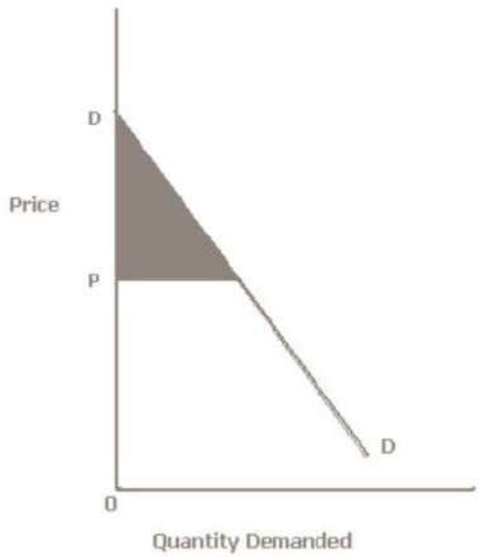
(a) positive

(b) negative

(c) zero

(d) can't say

105. In the diagram given below, the shaded portion represents.



(a) Price above which there is no demand for the commodity.

(b) Monopoly price of the commodity.

(c) Consumer surplus.

(d) None of the above.

106. The income elasticity of tomatoes is 0.25, it means tomatoes are:

(a) inferior goods.

(b) luxury goods.

(c) normal goods.

(d) can't say.

107. The cross elasticity between personal computers and soft wares is:

(a) positive.

(b) negative.

(c) zero .

(d) one.

108. The cross elasticity between Bread and DVDs is:

(a) positive.

(b) negative.

(c) zero .

(d) one.

109. Which of the following statements is correct?

(a) With the help of statistical tools, the demand can be forecasted accurately.

(b) The more the number of substitutes of a commodity, more elastic is the demand.

(c) Demand for butter is perfectly elastic.

(d) Gold jewellery will have negative income elasticity.

110. Suppose the income elasticity of education in private school in India is 1.6. What does this indicate:

(a) Private school education is a luxury.

(b) Private school education is a necessity.

(c) Private school education is an inferior commodity.

(d) We should have more private schools.

111. Suppose potatoes have (-).0.4 as income elasticity. We can say from the data given that:

(a) Potatoes are inferior goods.

(b) Potatoes are superior goods.

(c) Potatoes are necessities.

(d) There is a need to increase the income of consumers so that they can purchase potatoes.

ANSWERS

1.	d	2.	b	3.	c	4.	b	5.	b	6.	b
7.	b	8.	c	9.	c	10.	b	11.	b	12.	b
13.	b	14.	c	15.	d	16.	c	17.	a	18.	b
19.	d	20.	b	21.	b	22.	b	23.	c	24.	d
25.	d	26.	b	27.	a	28.	c	29.	b	30.	a
31.	b	32.	c	33.	b	34.	a	35.	c	36.	c
37.	a	38.	c	39.	c	40.	c	41.	d	42.	c
43.	a	44.	c	45.	a	46.	d	47.	d	48.	b
49.	b	50.	b	51.	d	52.	c	53.	b	54.	d
55.	b	56.	b	57.	c	58.	a	59.	b	60.	c
61.	c	62.	b	63.	a	64.	a	65.	d	66.	d
67.	a	68.	c	69.	a	70.	b	71.	c	72.	c
73.	b	74.	a	75.	c	76.	a	77.	d	78.	a
79.	c	80.	b	81.	a	82.	a	83.	a	84.	c
85.	a	86.	a	87.	c	88.	c	89.	d	90.	b
91.	a	92.	a	93.	a	94.	a	95.	d	96	a
97.	d	98.	a	99.	d	100.	c				

101. (d) 102. (b) 103. (d) 104. (a) 105. (c) 106. (c) 107. (b)

108. (c) 109. (b) 110. (a) 111. (a)

THEORY OF PRODUCTION AND COST

1. Which of the following is considered production in Economics?

(a) Tilling of soil.
(b) Singing a song before friends.
(c) Preventing a child from falling into a manhole on the road.
(d) Painting a picture for pleasure.

2. Identify the correct statement :

(a) The average product is at its maximum when marginal product is equal to average product.
(b) The law of increasing returns to scale relates to the effect of changes in factor proportions.
(c) Economies of scale arise only because of indivisibilities of factor proportions.
(d) Internal economies of scale can accrue only to the exporting sector.

3. Which of the following is not a characteristic of land?

(a) Its supply for the economy is limited.
(b) It is immobile.
(c) Its usefulness depends on human efforts.
(d) It is produced by our forefathers.

4. Which of the following statements is true?

(a) Accumulation of capital depends solely on income.
(b) Savings can also be affected by the State.
(c) External economies go with size and internal economies with location.
(d) The supply curve of labour is an upward slopping curve.

5. In the production of wheat, all of the following are variable factors that are used by the farmer except :

(a) the seed and fertilizer used when the crop is planted.
(b) the field that has been cleared of trees and in which the crop is planted.
(c) the tractor used by the farmer in planting and cultivating not only wheat but also corn and barley.
(d) the number of hours that the farmer spends in cultivating the wheat fields.

6. The marginal product of a variable input is best described as:

(a) total product divided by the number of units of variable input.
(b) the additional output resulting from a one unit increase in the variable input.
(c) the additional output resulting from a one unit increase in both the variable and fixed inputs.
(d) the ratio of the amount of the variable input that is being used to the amount of the fixed input that is being used.

7. Diminishing marginal returns implies:

(a) decreasing average variable costs.
(b) decreasing marginal costs.
(c) increasing marginal costs.
(d) decreasing average fixed costs.

8. The short run, as economists use the phrase, is characterized by:

(a) at least one fixed factor of production and firms neither leaving nor entering the industry.
(b) a period where the law of diminishing returns does not hold.
(c) no variable inputs – that is all of factors of production are fixed.
(d) all inputs being variable.

9. The marginal, average, and total product curves encountered by the firm producing in the short run exhibit all of the following relationships except:

(a) when total product is rising, average and marginal product may be either rising or falling.
(b) when marginal product is negative, total product and average product are falling.
(c) when average product is at a maximum, marginal product equals average product, and total product is rising.
(d) when marginal product is at a maximum, average product equals marginal product, and total product is rising.

10. To economists, the main difference between the short run and the long run is that :

(a) in the short run all inputs are fixed, while in the long run all inputs are variable.
(b) in the short run the firm varies all of its inputs to find the least-cost combination of inputs.
(c) in the short run, at least one of the firm's input levels is fixed.
(d) in the long run, the firm is making a constrained decision about how to use existing plant and equipment efficiently.

11. Which of the following is the best definition of "production function"?

(a) The relationship between market price and quantity supplied.
(b) The relationship between the firm's total revenue and the cost of production.
(c) The relationship between the quantities of inputs needed to produce a given level of output.
(d) The relationship between the quantity of inputs and the firm's marginal cost of production.

12. The "law of diminishing returns" applies to :

(a) the short run, but not the long run.
(b) the long run, but not the short run.
(c) both the short run and the long run.
(d) neither the short run nor the long run.

13. Diminishing returns occur :

(a) when units of a variable input are added to a fixed input and total product falls.
(b) when units of a variable input are added to a fixed input and marginal product falls.
(c) when the size of the plant is increased in the long run.
(d) when the quantity of the fixed input is increased and returns to the variable input falls.

Use the following information to answer questions 14-16.

Hours of Labour	Total Output	Marginal Product
0	—	—
1	100	100
2	________	80
3	240	________

14. What is the total output when 2 hours of labour are employed?

(a) 80
(b) 100
(c) 180
(d) 200

15. What is the marginal product of the third hour of labour?

(a) 60
(b) 80
(c) 100
(d) 240

16. What is the average product of the first three hours of labour?

(a) 60

(b) 80

(c) 100

(d) 240

17. Which cost increases continuously with the increase in production?

(a) Average cost.

(b) Marginal cost.

(c) Fixed cost.

(d) Variable cost.

18. Which of the following cost curves is never 'U' shaped?

(a) Average cost curve.

(b) Marginal cost curve.

(c) Average variable cost curve

(d) Average fixed cost curve.

19. Total cost in the short run is classified into fixed costs and variable costs. Which one of the following is a variable cost?

(a) Cost of raw materials.

(b) Cost of equipment.

(c) Interest payment on past borrowings.

(d) Payment of rent on building.

20. In the short run, when the output of a firm increases, its average fixed cost :

(a) increases.

(b) decreases.

(c) remains constant.

(d) first declines and then rises.

21. Which one of the following is also known as planning curve?

(a) Long run average cost curve.

(b) Short run average cost curve.

(c) Average variable cost curve.

(d) Average total cost curve.

22. The cost of one thing in terms of the alternative given up is known as:

(a) production cost.

(b) physical cost.

(c) real cost.

(d) opportunity cost.

23. With which of the following is the concept of marginal cost closely related?

(a) variable cost.

(b) fixed cost.

(c) opportunity cost.

(d) economic cost.

24. Which of the following statements is correct?

(a) When the average cost is rising, the marginal cost must also be rising.

(b) When the average cost is rising, the marginal cost must be falling.

(c) When the average cost is rising, the marginal cost is above the average cost.
(d) When the average cost is falling, the marginal cost must be rising.

25. Which of the following is an example of "explicit cost"?

(a) The wages a proprietor could have made by working as an employee of a large firm.
(b) The income that could have been earned in alternative uses by the resources owned by the firm.
(c) The payment of wages by the firm.
(d) The normal profit earned by a firm.

26. Which of the following is an example of an "implicit cost"?

(a) Interest that could have been earned on retained earnings used by the firm to finance expansion.
(b) The payment of rent by the firm for the building in which it is housed.
(c) The interest payment made by the firm for funds borrowed from a bank.
(d) The payment of wages by the firm.

Use the following data to answer questions 27-29.

Output (O) 0 1 2 3 4 5 6

Total Cost (TC) : Rs. 240 Rs. 330 Rs. 410 Rs. 480 Rs. 540 Rs. 610 Rs. 690

27. The average fixed cost of 2 units of output is :

(a) Rs. 80
(b) Rs. 85
(c) Rs. 120
(d) Rs. 205

28. The marginal cost of the sixth unit of output is :

(a) Rs. 133
(b) Rs. 75
(c) Rs. 80
(d) Rs. 450

29. Diminishing marginal returns start to occur between units :

(a) 2 and 3.
(b) 3 and 4.
(c) 4 and 5.
(d) 5 and 6.

30. Marginal cost is defined as :

(a) the change in total cost due to a one unit change in output.
(b) total cost divided by output.
(c) the change in output due to a one unit change in an input.
(d) total product divided by the quantity of input.

31. Which of the following is true of the relationship between the marginal cost function and the average cost function?

(a) If MC is greater than ATC, then ATC is falling.
(b) The ATC curve intersects the MC curve at minimum MC.
(c) The MC curve intersects the ATC curve at minimum ATC.
(d) If MC is less than ATC, then ATC is increasing.

32. Which of the following statements is true of the relationship among the average cost functions?

(a) ATC = AFC – AVC.
(b) AVC = AFC + ATC.

(c) AFC = ATC + AVC.

(d) AFC = ATC – AVC.

33. Which of the following is not a determinant of the firm's cost function?

(a) The production function.

(b) The price of labour.

(c) Taxes.

(d) The price of the firm's output.

34. Which of the following statements is correct concerning the relationships among the firm's cost functions?

(a) TC = TFC – TVC.

(b) TVC = TFC – TC.

(c) TFC = TC – TVC.

(d) TC = TVC – TFC.

35. Suppose output increases in the short run. Total cost will :

(a) increase due to an increase in fixed costs only.

(b) increase due to an increase in variable costs only.

(c) increase due to an increase in both fixed and variable costs.

(d) decrease if the firm is in the region of diminishing returns.

36. Which of the following statements concerning the long-run average cost curve is false?

(a) It represents the least-cost input combination for producing each level of output.

(b) It is derived from a series of short-run average cost curves.

(c) The short-run cost curve at the minimum point of the long-run average cost curve represents the least–cost plant size for all levels of output.

(d) As output increases, the amount of capital employed by the firm increases along the curve.

37. The negatively-sloped (i.e. falling) part of the long-run average total cost curve is due to which of the following?

(a) Diseconomies of scale.

(b) Diminishing returns.

(c) The difficulties encountered in coordinating the many activities of a large firm.

(d) The increase in productivity that results from specialization.

38. The positively sloped (i.e. rising) part of the long run average total cost curve is due to which of the following?

(a) Diseconomies of scale.

(b) Increasing returns.

(c) The firm being able to take advantage of large-scale production techniques as it expands its output.

(d) The increase in productivity that results from specialization.

39. A firm's average total cost is Rs. 300 at 5 units of output and Rs. 320 at 6 units of output. The marginal cost of producing the 6th unit is :

(a) Rs. 20

(b) Rs. 120

(c) Rs. 320

(d) Rs. 420

40. A firm producing 7 units of output has an average total cost of Rs. 150 and has to pay Rs. 350 to its fixed factors of production whether it produces or not. How much of the average total cost is made up of variable costs?

(a) Rs. 200

(b) Rs. 50

(c) Rs. 300

(d) Rs. 100

41. A firm has a variable cost of Rs. 1000 at 5 units of output. If fixed costs are Rs. 400, what will be the average total cost at 5 units of output?

(a) Rs. 280
(b) Rs. 60
(c) Rs. 120
(d) Rs. 1400

42. A firm's average fixed cost is Rs. 20 at 6 units of output. What will it be at 4 units of output?

(a) Rs. 60
(b) Rs. 30
(c) Rs. 40
(d) Rs. 20

43. Which of the following statements is true?

(a) The services of a doctor are considered production.
(b) Man can create matter.
(c) The services of a housewife are considered production.
(d) When a man creates a table, he creates matter.

44. Which of the following is a function of an entrepreneur?

(a) Initiating a business enterprise.
(b) Risk bearing.
(c) Innovating.
(d) All of the above.

45. In describing a given production technology, the short run is best described as lasting:

(a) up to six months from now.
(b) up to five years from now.
(c) as long as all inputs are fixed.
(d) as long as at least one input is fixed.

46. If decreasing returns to scale are present, then if all inputs are increased by 10% then:

(a) output will also decrease by 10%.
(b) output will increase by 10%.
(c) output will increase by less than 10%.
(d) output will increase by more than 10%.

47. The production function is a relationship between a given combination of inputs and:

(a) another combination that yields the same output.
(b) the highest resulting output.
(c) the increase in output generated by one-unit increase in one output.
(d) all levels of output that can be generated by those inputs.

48. If the marginal product of labour is below the average product of labour, it must be true that:

(a) the marginal product of labour is negative.
(b) the marginal product of labour is zero.
(c) the average product of labour is falling.
(d) the average product of labour is negative.

49. The average product of labour is maximized when marginal product of labour:

(a) equals the average product of labour.
(b) equals zero.
(c) is maximized.
(d) none of the above.

50. The law of variable proportions is drawn under all of the assumptions mentioned below except the assumption that:

(a) the technology is changing.
(b) there must be some inputs whose quantity is kept fixed.
(c) we consider only physical inputs and not economically profitability in monetary terms.
(d) the technology is given and stable.

51. What is a production process?

a. technical relationship between physical inputs and physical output.
b. relationship between fixed factors of production and variable factors of production.
c. relationship between a factor of production and the utility created by it.
d. relationship between quantity of output produced and time taken to produce the output.

52. Laws of production does not include ......

a. returns to scale.
b. law of diminishing returns to a factor
c. law of variable proportions.
d. least cost combination of factors.

53. Identify the fixed cost from the following:

a. Labour cost.
b. Electricity bill
c. Salary of watchman
d. Cost of raw materials

54. Which of the following is not an assumption of the law of variable proportions

a. Only one factor is variable.
b. Technique of production remains constant.
c. Proportion of factors of production remains same.
d. Units of variable factor are homogeneous.

55. Which of the following statements is correct?

a. Supply of land is perfectly elastic.
b. Fertility of land cannot change.
c. Land does not yield any result unless human efforts are employed.
d. Supply of land can be increased.

56. The production process described below exhibits

Number of Workers	Output
0	0
1	23
2	40
3	50

a. constant marginal product of labour
b. diminishing marginal product of labour
c. increasing return to scale
d. increasing marginal product of labour

57. Which of the following is a variable cost in the short run?

a. rent of the factory

b. wages paid to the factory labour

c. interest payments on borrowed financial capital

d. payment on the lease for factory equipment

58. The efficient scale of production is the quantity of output that minimizes

a. average fixed cost

b. average total cost

c. average variable cost

d. marginal cost

59. If marginal cost equals average total cost,

a. average total cost is falling

b. average total cost is rising

c. average total cost is maximized

d. average total cost is minimized

60. In the long run

a. all inputs are fixed

b. all inputs are variable

c. at least one input is variable and one input is fixed

d. at most one input is variable and one input is fixed

61. Average product is defined as

a. total product divided by the total cost

b. total product divided by marginal product

c. total product divided by the variable input

d. marginal product divided by the variable input

62. The change in the total product resulting from a change in a variable input is

a. average cost

b. average product

c. marginal cost

d. marginal product

63. Marginal product, mathematically, is the slope of the

a. total product curve

b. average product curve

c. marginal product curve

d. implicit product curve

64. Suppose the first four units of a variable input generate corresponding total outputs of 200, 350, 450, 500. The marginal product of the third unit of input is:

a. 50

b. 100

c. 150

d. 200

65. The law of diminishing marginal returns indicates that marginal return

a. always diminish

b. eventually diminish
c. always diminish before increasing
d. never diminish before increasing

66. Diminishing marginal returns for the first four units of a variable input is exhibited by the total product sequence:

a. 50,50,50,50
b. 50,110,180,260
c. 50, 100, 150, 200
d. 50, 90, 120, 140

67. If marginal product is equal to average product, then:

a. marginal product is increasing
b. marginal product is decreasing
c. average product is decreasing
d. average product is not changing

68. In the third of the three stages of production:

a. the marginal product curve has a positive slope
b. the marginal product curve lies completely below the average product curve
c. total product increases
d. marginal product is positive

69. When marginal costs are below average total costs,

(a) average fixed costs are rising
(b) average total costs are falling
(c) average total costs are rising
(d) average total costs are minimized

70. If the average cost is falling, then:

(a) Marginal cost is rising
(b) Marginal cost is falling
(c) Marginal cost is equal to average cost
(d) It is impossible to tell if marginal cost is rising or falling

71. In the long run, if a very small factory were to expand its scale of operations, it is likely that it would initially experience

(a) an increase in pollution level
(b) diseconomies of scale
(c) economies of scale
(d) constant returns to scale

72. The difference between average total cost and average variable cost:

(a) is constant
(b) is total fixed cost
(c) gets narrow as output decreases
(d) is the average fixed cost

73. In the long-run, some firms will exit the market if the price of the good offered for sale is less than

a. marginal revenue
b. marginal cost
c. average total cost
d. average revenue

74. The marginal cost for a firm of producing the 9th unit of output is Rs. 20. Average cost at the same level of output is Rs. 15. Which of the following must be true?

a. marginal cost and average cost are both falling

b. marginal cost and average cost are both rising

c. marginal cost is rising and average cost is falling

d. it is impossible to tell if either of the curves are rising or falling

75. Labour is defined as ——————————

a. Any work done without remuneration

b. Any exertion of mind or body to get some reward

c. Helping the mother

d. Helping the friends

76. The most important function of an entrepreneur is to——————————

a. Innovate

b. Bear the sense of responsibility

c. Finance

d. Earn profit

77. Which one of the following is correct?

a. Land is produced by man's efforts.

b. The supply of land is not constant.

c. Capital is not a result of savings.

d. Capital refers to the produced means of production.

78. Which one of the following is incorrect?

a. Land has original and indestructible powers to produce

b. Labour has poor bargaining power.

c. Risk in a business concern can be insured.

d. The supply of land is not constant.

79. Marginal cost changes due to changes in ————————

a. Total cost

b. Average cost

c. Variable cost

d. Quantity of output

80. Which of the following statements is correct?

a. Fixed costs vary with change in output

b. If we add total variable cost and total fixed cost we get the average cost

c. Marginal cost is the result of total cost divided by number of units produced

d. Total cost is obtained by adding up the fixed cost and total variable cost

81. Which of the following statements is incorrect?

a. The LAC curve is also called the planning curve of a firm

b. Total revenue = price per unit × number of units sold

c. Opportunity cost is also called alternative cost

d. If total revenue is dived by the number of units sold we get marginal revenue.

82. In the third of the three stages of production:

(a) the marginal product curve has a positive slope.

(b) the marginal product curve lies completely below the average product curve.
(c) total product increases.
(d) marginal product is positive.

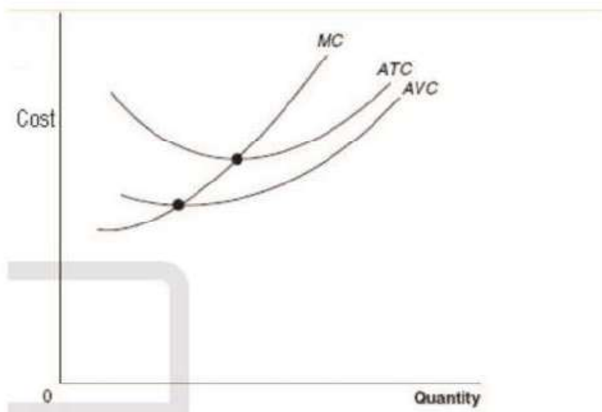
83. Which of the following statements describes increasing returns to scale?

(a) Doubling of all inputs used leads to doubling of the output.
(b) Increasing the inputs by 50% leads to a 25% increase in output.
(c) Increasing inputs by 1/4 leads to an increase in output of 1/3.
(d) None of the above.

84. Implicit cost can be defined as

(a) Money payments made to the non-owners of the firm for the self-owned factors employed in the business and therefore not entered into books of accounts.
(b) Money not paid out to the owners of the firm for the self owned factors employed in a business and therefore not entered into books of accounts.
(c) Money payments which the self owned and employed resources could have earned in their next best alternative employment and therefore entered into books of accounts.
(d) Money payments which the self owned and employed resources earn in their best use and therefore entered into book of accounts.

85. In figure below, possible reason why the average variable cost curve approaches the average total cost curve as output rises is:



(a) Fixed costs are falling while total costs are rising at rising output.
(b) Total costs are rising and average costs are also rising.
(c) Marginal costs are above average variable costs as output rises.
(d) Average fixed costs are falling as output rises.

ANSWERS

1.	a	2.	a	3.	d	4.	b	5.	b	6.	b
7.	c	8.	a	9.	d	10.	c	11.	c	12.	a
13.	b	14.	c	15.	a	16.	b	17.	d	18.	d
19.	a	20.	b	21.	a	22.	d	23.	a	24.	c
25.	c	26.	a.	27.	c.	28.	c	29.	c	30.	a.
31.	c	32.	d	33.	d	34.	c	35.	b	36.	c
37.	d	38.	a	39.	d	40.	d	41.	a	42.	b
43.	a	44.	d	45.	d	46.	c	47.	b	48.	c
49.	a	50.	a	51.	a	52.	d	53.	c	54.	c
55.	c	56.	b	57.	b	58.	b	59.	d	60.	b
61.	c	62.	d	63.	a	64.	b	65.	b	66.	d
67.	d	68.	b	69.	b	70.	d	71.	c	72.	d
73.	c	74.	b	75.	b	76.	a	77.	d	78.	d
79.	c	80	d	81.	d						

82. (b) 83. (c) 84. (b) 85. (d)

PRICE DETERMINATION IN DIFFERENT MARKETS

1. In the table below what will be equilibrium market price?

Price (₹)	*Demand (tonnes per annum)*	*Supply (tonnes per annum)*
1	1000	400
2	900	500
3	800	600
4	700	700
5	600	800
6	500	900
7	400	1000
8	300	1100

(a) Rs. 2
(b) Rs. 3
(c) Rs. 4
(d) Rs. 5

2. Assume that when price is Rs. 20, the quantity demanded is 9 units, and when price is Rs. 19, the quantity demanded is 10 units. Based on this information, what is the marginal revenue resulting from an increase in output from 9 units to 10 units.

(a) Rs. 20
(b) Rs. 19
(c) Rs. 10
(d) Rs. 1

3. Assume that when price is Rs. 20, the quantity demanded is 15 units, and when price is Rs. 18, the quantity demanded is 16 units. Based on this information, what is the marginal revenue resulting from an increase in output from 15 units to 16 units?

(a) Rs. 18
(b) Rs. 16
(c) Rs. 12
(d) Rs. 28

4. Suppose a firm is producing a level of output such that MR > MC, What should be firm do to maximize its profits?

(a) The firm should do nothing.
(b) The firm should hire less labour.
(c) The firm should increase price.
(d) The firm should increase output.

5. Marginal Revenue is equal to :

(a) the change in price divided by the change in output.
(b) the change in quantity divided by the change in price.
(c) the change in P x Q due to a one unit change in output.
(d) price, but only if the firm is a price searcher.

6. Suppose that a sole proprietorship is earning total revenues of Rs. 1,00,000 and is incurring explicit costs of Rs. 75,000. If the owner could work for another company for Rs. 30,000 a year, we would conclude that :

(a) the firm is incurring an economic loss.
(b) implicit costs are Rs. 25,000.
(c) the total economic costs are Rs. 1,00,000.
(d) the individual is earning an economic profit of Rs. 25,000.

7. Which of the following is not an essential condition of pure competition?

(a) Large number of buyers and sellers
(b) Homogeneous product
(c) Freedom of entry
(d) Absence of transport cost

8. What is the shape of the demand curve faced by a firm under perfect competition?

(a) Horizontal
(b) Vertical
(c) Positively sloped
(d) Negatively sloped

9. Which is the first order condition for the profit of a firm to be maximum?

(a) AC = MR
(b) MC = MR
(c) MR = AR
(d) AC = AR

10. Which of the following is not a characteristic of a "price taker"?

(a) TR = P x Q
(b) AR = Price
(c) Negatively – sloped demand curve
(d) Marginal Revenue = Price

11. Which of the following statements is false?

(a) Economic costs include the opportunity costs of the resources owned by the firm.
(b) Accounting costs include only explicit costs.
(c) Economic profit will always be less than accounting profit if resources owned and used by the firm have any opportunity costs.
(d) Accounting profit is equal to total revenue less implicit costs.

12. With a given supply curve, a decrease in demand causes

(a) an overall decrease in price but an increase in equilibrium quantity.
(b) an overall increase in price but a decrease in equilibrium quantity.
(c) an overall decrease in price and a decrease in equilibrium quantity.
(d) no change in overall price but a reduction in equilibrium quantity.

13. It is assumed in economic theory that

(a) decision making within the firm is usually undertaken by managers, but never by the owners.
(b) the ultimate goal of the firm is to maximise profits, regardless of firm size or type of business organisation.
(c) as the firm's size increases, so do its goals.
(d) the basic decision making unit of any firm is its owners.

14. Assume that consumers' incomes and the number of sellers in the market for good A both decrease. Based upon this information, we can conclude, with certainty, that the equilibrium :

(a) price will increase.

(b) price will decrease.
(c) quantity will increase.
(d) quantity will decrease.

15. Suppose that the supply of cameras increases due to an increase in imports. Which of the following will most likely occur?

(a) the equilibrium price of cameras will increase.
(b) the equilibrium quantity of cameras exchanged will decrease.
(c) the equilibrium price of camera film will decrease.
(d) the equilibrium quantity of camera film exchanged will increase.

16. Assume that in the market for good Z there is a simultaneous increase in demand and the quantity supplied. The result will be :

(a) an increase in equilibrium price and quantity.
(b) a decrease in equilibrium price and quantity.
(c) an increase in equilibrium quantity and uncertain effect on equilibrium price.
(d) a decrease in equilibrium price and increase in equilibrium quantity.

17. Suppose the technology for producing personal computers improves and, at the same time, individuals discover new uses for personal computers so that there is greater utilization of personal computers. Which of the following will happen to equilibrium price and equilibrium quantity?

(a) Price will increase; quantity cannot be determined.
(b) Price will decrease; quantity cannot be determined.
(c) Quantity will increase; price cannot be determined.
(d) Quantity will decrease; price cannot be determined.

18. Which of the following is not a condition of perfect competition?

(a) A large number of firms.
(b) Perfect mobility of factors.
(c) Informative advertising to ensure that consumers have good information.
(d) Freedom of entry and exit into and out of the market.

19. Which of the following is not a characteristic of a perfectly competitive market?

(a) Large number of firms in the industry.
(b) Outputs of the firms are perfect substitutes for one another.
(c) Firms face downward-sloping demand curves.
(d) Resources are very mobile.

20. Which of the following is not a characteristic of monopolistic competition?

(a) Ease of entry into the industry.
(b) Product differentiation.
(c) A relatively large number of sellers.
(d) A homogenous product.

21. All of the following are characteristics of a monopoly except :

(a) there is a single firm.
(b) the firm is a price taker.
(c) the firm produces a unique product.
(d) the existence of some advertising.

22. Oligopolistic industries are characterized by :

(a) a few dominant firms and substantial barriers to entry.
(b) a few large firms and no entry barriers.
(c) a large number of small firms and no entry barriers.

(d) one dominant firm and low entry barriers.

23. Price-taking firms, i.e., firms that operate in a perfectly competitive market, are said to be "small" relative to the market. Which of the following best describes this smallness?

(a) The individual firm must have fewer than 10 employees.

(b) The individual firm faces a downward-sloping demand curve.

(c) The individual firm has assets of less than Rs. 20 lakh.

(d) The individual firm is unable to affect market price through its output decisions.

24. For price-taking firm :

(a) marginal revenue is less than price.

(b) marginal revenue is equal to price.

(c) marginal revenue is greater than price.

(d) the relationship between marginal revenue and price is indeterminate.

25. Monopolistic competition differs from perfect competition primarily because

(a) in monopolistic competition, firms can differentiate their products.

(b) in perfect competition, firms can differentiate their products.

(c) in monopolistic competition, entry into the industry is blocked.

(d) in monopolistic competition, there are relatively few barriers to entry.

26. The long-run equilibrium outcomes in monopolistic competition and perfect competition are similar, because in both market structures

(a) the efficient output level will be produced in the long run.

(b) firms will be producing at minimum average cost.

(c) firms will only earn a normal profit.

(d) firms realise all economies of scale.

27. A monopolist is able to maximise his profits when :

(a) his output is maximum.

(b) he charges a high price.

(c) his average cost is minimum.

(d) his marginal cost is equal to marginal revenue.

28. In which form of the market structure is the degree of control over the price of its product by a firm very large?

(a) Monopoly

(b) Imperfect Competition

(c) Oligopoly

(d) Perfect competition

29. Average revenue curve is also known as:

(a) Profit Curve

(b) Demand Curve

(c) Average Cost Curve

(d) Indifference Curve

30. Under which of the following forms of market structure does a firm have no control over the price of its product?

(a) Monopoly

(b) Monopolistic competition

(c) Oligopoly

(d) Perfect competition

31. Discriminating monopoly implies that the monopolist charges different prices for his commodity :

(a) from different groups of consumers
(b) for different uses
(c) at different places
(d) any of the above.

32. Price discrimination will be profitable only if the elasticity of demand in different sub markets:

(a) uniform
(b) different
(c) less
(d) zero

33. In the context of oligopoly, the Kinked demand hypothesis is designed to explain

(a) Price and output determination
(b) Price rigidity
(c) Price leadership
(d) Collusion among rivals.

34. The firm in a perfectly competitive market is a price taker. This designation as a price taker is based on the assumption that

(a) the firm has some, but not complete, control over its product price.
(b) there are so many buyers and sellers in the market that any individual firm cannot affect the market.
(c) each firm produces a homogeneous product.
(d) there is easy entry into or exit from the market place.

35. Suppose that the demand curve for the XYZ Co. slopes downward and to the right. We can conclude that

(a) the firm operates in a perfectly competitive market.
(b) the firm can sell all that it wants to at the established market price.
(c) the XYZ Co. is not a price taker in the market because it must lower price to sell additional units of output.
(d) the XYZ Co. will not be able to maximise profits because price and revenue are subject to change.

36. If firms in the toothpaste industry have the following market shares, which market structure would best describe the industry?

Market share (% of market)

Toothpaste	18.7
Dentipaste	14.3
Shinibright	11.6
I can't believe its not toothpaste	9.4
Brighter than white	8.8
Pastystuff	7.4
Others	29.8

(a) Perfect competition
(b) Monopolistic competition
(c) Oligopoly
(d) Monopoly

37. The kinked demand curve model of oligopoly assumes that

(a) the response to a price increase is less than the response to a price decrease.
(b) the response to a price increase is more than the response to a price decrease.
(c) the elasticity of demand is constant regardless of whether price increases or decreases.

(d) the elasticity of demand is perfectly elastic if price increases and perfectly inelastic if price decreases.

38. A firm encounters its "shutdown point" when :

(a) average total cost equals price at the profit-maximising level of output.

(b) average variable cost equals price at the profit-maximising level of output.

(c) average fixed cost equals price at the profit-maximising level of output.

(d) marginal cost equals price at the profit-maximising level of output.

39. Suppose that, at the profit-maximizing level of output, a firm finds that market price is less than average total cost, but greater than average variable cost. Which of the following statements is correct?

(a) The firm should shutdown in order to minimise its losses.

(b) The firm should raise its price enough to cover its losses.

(c) The firm should move its resources to another industry.

(d) The firm should continue to operate in the short run in order to minimize its losses.

40. When price is less than average variable cost at the profit-maximising level of output, a firm should :

(a) produce where marginal revenue equals marginal cost if it is operating in the short run.

(b) produce where marginal revenue equals marginal cost if it is operating is the long run.

(c) shutdown, since it will lose nothing in that case.

(d) shutdown, since it cannot even cover its variable costs if it stays in business.

41. A purely competitive firm's supply schedule in the short run is determined by

(a) its average revenue.

(b) its marginal revenue.

(c) its marginal utility for money curve.

(d) its marginal cost curve.

42. One characteristic not typical of oligopolistic industry is

(a) horizontal demand curve.

(b) too much importance to non-price competition.

(c) price leadership.

(d) a small number of firms in the industry.

43. The structure of the toothpaste industry in India is best described as

(a) perfectly competitive.

(b) monopolistic.

(c) monopolistically competitive.

(d) oligopolistic.

44. The structure of the cold drink industry in India is best described as

(a) perfectly competitive.

(b) monopolistic.

(c) monopolistically competitive.

(d) oligopolistic.

45. Which of the following statements is incorrect?

(a) Even monopolistic can earn losses.

(b) Firms in a perfectly competitive market are price takers.

(c) It is always beneficial for a firm in a perfectly competitive market to discriminate prices.

(d) Kinked demand curve is related to an oligopolistic market.

46. Under perfect competition, in the long run, there will be no ________________ .

(a) normal profits

(b) supernormal profits.

(c) production

(d) costs.

47. When _________________________________ , we know that the firms are earning just normal profits.

(a) AC = AR

(b) MC = MR

(c) MC = AC

(d) AR = MR

48. When _______________________________ , we know that the firms must be producing at the minimum point of the average cost curve and so there will be productive efficiency.

(a) AC = AR

(b) MC = AC

(c) MC = MR

(d) AR = MR

49. When ______________________________ , there will be allocative efficiency meaning thereby that the cost of the last unit is exactly equal to the price consumers are willing to pay for it and so that the right goods are being sold to the right people at the right price.

(a) MC = MR

(b) MC = AC

(c) MC = AR

(d) AR = MR

50. Agricultural goods markets depict characteristics close to

(a) perfect competition.

(b) oligopoly.

(c) monopoly.

(d) monopolistic Competition.

51. Which of the following is not a characteristic of a competitive market?

a. There are many buyers and sellers in the market.

b. The goods offered for sales are largely the same.

c. Firms generate small but positive super normal profits in the long run.

d. Firms can freely enter or exit the market.

52. Which of the following markets would most closely satisfy the requirements for a perfectly competitive market?

a. Electricity

b. Cable television

c. Cola

d. Milk

53. The competitive firm maximizes profit when it produces output up to the point where a. price equals average variable cost

b. marginal revenue equals average revenue

c. marginal cost equals total revenue

d. marginal cost equals marginal revenue

54. The market for hand tools (such as hammers and screwdrivers) is dominated by Draper, Stanley, and Craftsman. This market is best described as

a. Monopolistically competitive

b. a monopoly

c. an oligopoly

d. perfectly competitive

55. A market structure in which many firms sell products that are similar but not identical is known as

a. monopolistic competition

b. monopoly

c. perfect competition

d. oligopoly

56. When an oligopolist individually chooses its level of production to maximize its profits, it charges a price that is

a. more than the price charged by either monopoly or a competitive market

b. less than the price charged by either monopoly or a competitive market

c. more than the price charged by a monopoly and less than the price charged by a competitive market

d. less then the price charged by a monopoly and more than the price charged by a competitive market.

57. In the long-run equilibrium of a competitive market, firms operate at

a. the intersection of the marginal cost and marginal revenue

b. their efficient scale

c. zero economic profit

d. all of these answers are correct

58. Which of the following is not a characteristic of a monopolistically competitive market?

a. Free entry and exit

b. Abnormal profits in the longrun

c. Many sellers

d. Differentiated products

59. In a very short period market :

a. the supply is fixed

b. the demand is fixed

c. demand and supply are fixed

d. none of the above

60. Time element was conceived by

a. Adam Smith

b. Alfred Marshall

c. Pigou

d. Lionel Robinson

61. Total revenue =

a. price ×quantity

b. price × income

c. income ×quantity

d. none of the above

62. Average revenue is the revenue earned

a. per unit of input

b. per unit of output
c. different units of input
d. different units of output

63. AR can be symbolically written as:

a. MR / Q
b. price × quantity
c. TR / Q
d. none of the above

64. AR is also known as:

a. price
b. income
c. revenue
d. none of the above

65. Marginal revenue can be defined as the change in total revenue resulting from the:

a. purchase of an additional unit of a commodity
b. sales of an additional unit of a commodity
c. sale of subsequent units of a product
d. none of the above

66. When e > 1 then MR is

a. zero
b. negative
c. positive
d. one

67. When e = 1 then MR is

a. positive
b. zero
c. one
d. negative

68. When e < 1 then MR is

a. negative
b. zero
c. positive
d. one

69. The term 'market' refers to a:

a. place where buyer and seller bargain a product or service for a price
b. place where buyer does not bargain
c. place where seller does not bargain
d. none of the above

70. Under perfect competition a firm is the ___________

a. price maker and not price taker
b. price taker and not price maker
c. spot market
d. none of the above

78. The market for the ultimate consumers is known as

a. whole sale market

b. regulated market

c. unregulated market

d. retail market

79. The condition for pure competition is

a. large number of buyer and seller, free entry and exist

b. homogenous product

c. both (a) and (b)

d. large number of buyer and seller, homogenous product, perfect knowledge about the product

80. Pure oligopoly is based on the———————— products

a. differentiated

b. homogeneous

c. unrelated

d. none of the above

81. In oligopoly, when the industry is dominated by one large firm which is considered as leader of the group, Then it is called:

a. full oligopoly

b. collusive oligopoly

c. partial oligopoly

d. syndicated oligopoly

82. When the products are sold through a centralized body, oligopoly is known as

a. organized oligopoly

b. partial oligopoly

c. competitive oligopoly

d. syndicated oligopoly

83. When the monopolist divides the consumers into separate sub markets and charges different prices in different sub-markets it is known as

a. first degree of price discrimination

b. second degree of price discrimination

c. third degree of price discrimination

d. none of the above.

84. Under ———————— the monopolist will fix a price which will take away the entire consumers' surplus.

a. second degree of price discrimination

b. first degree of price discrimination

c. third degree of price discrimination

d. none of the above.

85. Price discrimination is related to

a. time

b. size of the purchase

c. income

d. any of the above

86. The firm and the industry are one and the same in ————————

a. Perfect competition

b. Monopolistic competition
c. Duopoly
d. Monopoly

87. The demand curve of a monopoly firm will be ————

a. Upward sloping
b. Downward sloping
c. Horizontal
d. Vertical

88. If the average cost is higher than the average revenue then the firm incurs ——

a. Normal profit
b. Abnormal profit
c. Loss
d. No profit, no loss

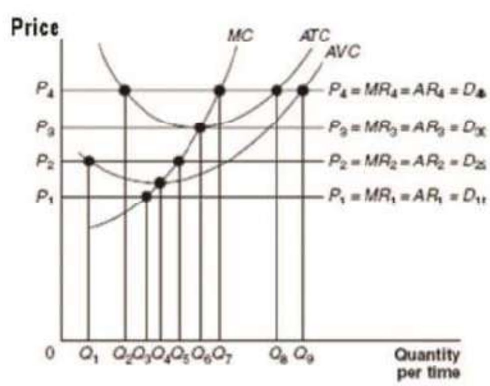
89. Which of the following statements is correct?

a. Price rigidity is an important features of monopoly.
b. Selling costs are possible under perfect competition.
c. Under perfect competition factors of production do not move freely as there are legal restrictions.
d. An industry consist of many firms.

90. Which of the following statements is incorrect?

a. Under monopoly there is no difference between a firm and an industry.
b. A monopolist may restrict the output and raises the price.
c. Commodities offered for sale under a perfect competition will be heterogeneous.
d. Product differentiation is peculiar to monopolistic competition.

91. At price P1, the firm in the figure would produce



(a) Zero output
(b) Q3.
(c) Q5.
(d) Q6.

92. Stock exchange market is an example of

(a) unregulated market
(b) regulated market
(c) spot market
(d) none of the above

ANSWERS

1.	c	2.	c	3.	c	4.	d	5.	c	6.	a
7.	d	8.	a	9.	b	10.	c	11.	d	12.	c
13.	b	14.	d	15.	d	16.	c	17.	c	18.	c
19.	c	20.	d	21.	b	22.	a	23.	d	24.	b
25.	a	26.	c	27.	d	28.	a	29.	b	30.	d
31.	d	32.	b	33.	b	34.	b	35.	c	36.	c
37.	a	38.	b	39.	d	40.	d	41.	d	42.	a
43.	c	44.	d	45.	c	46.	b	47.	a	48.	b
49	c	50.	a	51.	c.	52.	d	53.	d	54.	c
55.	a	56.	d	57.	d	58.	b	59.	a	60.	b
61.	a	62.	b	63.	c	64.	a	65.	b	66.	c
67.	b	68.	a	69.	a	70.	b	71.	a	72.	b
73.	c	74.	b	75.	c	76.	c	77.	b	78.	d
79.	c	80.	b	81.	c	82.	d	83.	c	84	b
85.	d	86.	d	87.	b	88.	c	89.	d	90.	c

91. (a) 92. (b)