4. DEMAND ANALYSIS

Q:1 What are the determinants of Demand? How do they influence the demand?

(A) **Demand :-** Demand means effective demand for a commodity.

"Demand means a desire which is backed by Ability and Willingness to Pay for it"

(B) **Determinants of Demand :-** Demand for a commodity is depends upon various factors. They are -

1. **Price of Commodity :-** Demand for commodity is greatly affected by its Price. At high Price consumers demand Less Quantity and Vice versa. Thus, Price and Quantity demanded have inverse relationship.

2. **Price of Close-Substitutes :-** Demand for Commodity is greatly affected by Price of close-substitutes.
Example :- When Price of Tea is lower than the Price of Coffee, then demand for Tea will increase.

3. **Price of Complimentary goods :-** Complimentary goods are Jointly demanded goods. If Price of one commodity increase then demand for other commodity will Reduce.
Example - Car and Petrol, Bread and Butter, Milk and Sugar etc.

4) **Income of Consumer :-** Demand for commodity is also affected by income of consumers or households.
Example :- Higher the income, more is the demand for goods and services and Vice Versa.
Higher income group Generally demand more Comfortable and Luxury goods. As income increase, Demand for inferior goods decreased but in case of Normal goods Income effect is Positive.

5] **Taste, Preference, Fashion Habit etc :-** Demand is also affected by Taste, Preference, Habit of Consumers.
Example :- If a person likes taste of coffee then even at High Price he will demand Coffee.
Smoker will demand Cigarettes even at High Price.
Even Vegetarian People do not affected by Change in Price of Non-Vegetarian food because they do not demand these goods.

6] **Consumer's Future Expectations :-** Consumers always expect about Price in near Future.
Example :- If Consumer Expect rise in Price in near Future, the Consumer will demand more goods in Present and Vice Versa.

7] **Size and Distribution of Population :-** Demand for essential goods depends upon Size of Population. when Population of Country is more, demand for goods and services will be more like India and China.

Demand is also affected by age composition of Population. When economy have large number of young generation Like- U.K, USA demand Comfortable and Luxury goods But when Economy have Large number of Children, like- India, there will be more demand for babyfood, Toys etc.

8] Distribution of Income and wealth :- When income and wealth is equally distributed in the economy then Consumer demand will be more and Vice Versa.

9] Tax Policy :- when Government impose Higher Tax, Disposable income of People get reduced which reduce the demand for goods and Services.

10] Advertisement and Salesmanship :- Advertisement and Salesmanship create better impression in the minds of Consumers. It attract all type of buyers. It helps to increase demand for various goods and Services.

11] Introduction of New Technology :- In Case of New Product or New Technology, Consumers demand more even at High Price.

12] Climate :- Consumer is greatly affected by Change in weather Conditions.

Example :- i) Demand for ice-creams, Cold drinks increase during Summer Season.

ii) Demand for Umbrellas, Rainywares increase during Monsoon. etc.

13] Festivals and Customs :- During Festivals demand for Various goods and Services will increase to great extent. It is also affected by Customs.

Example → : During Diwali festival, Demand for Various goods and services increase to a great extent.

14) Psychology of Consumers :- Some Consumers demand more goods to imitate rich People. It is called Snob effect or Demonstration effect.

Some People demand more goods to copy Filmstars, Friends, Relatives, Sportsman, Neighbours etc. It is called Bandwagon effect.

15] Availability of Credit :- Demand for expensive and durable goods mostly depends upon availability of Credit

Example :- When People gets easily available Loan Facilities then demand for - Own-House, Cars, Motorcycles will increase.

Q:2 Explain the Market demand Curve and Market Demand Function ?

(A) Introduction :- A demand can be Classified as Individual Demand and Market demand.

(B) Individual Demand :-

"The amount of Commodity an individual Consumer is willing to buy at different Price level is called Individual Demand"

Other things remains same, every individual is expected to buy more at Lower Price and Vice Versa.

An Individual Consumers demand depends Upon — Price of Commodity, Disposable income of Consumer, Taste, Preference Habit, Advertisement, Credit facilities etc.

(C) Market Demand :-

"The amount of Commodity of all Consumers is willing to buy at different Price Level is Called Market Demand."

Market Demand is the Sum total of all Individuals demand in the market.

Market demand is influenced by all those factors that affect Individuals demand. In addition, Market Demand is also affected by - Size and Composition of Population, Distribution of income and wealth, Climate, Festivals and Customs etc.

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Market Demand Schedule

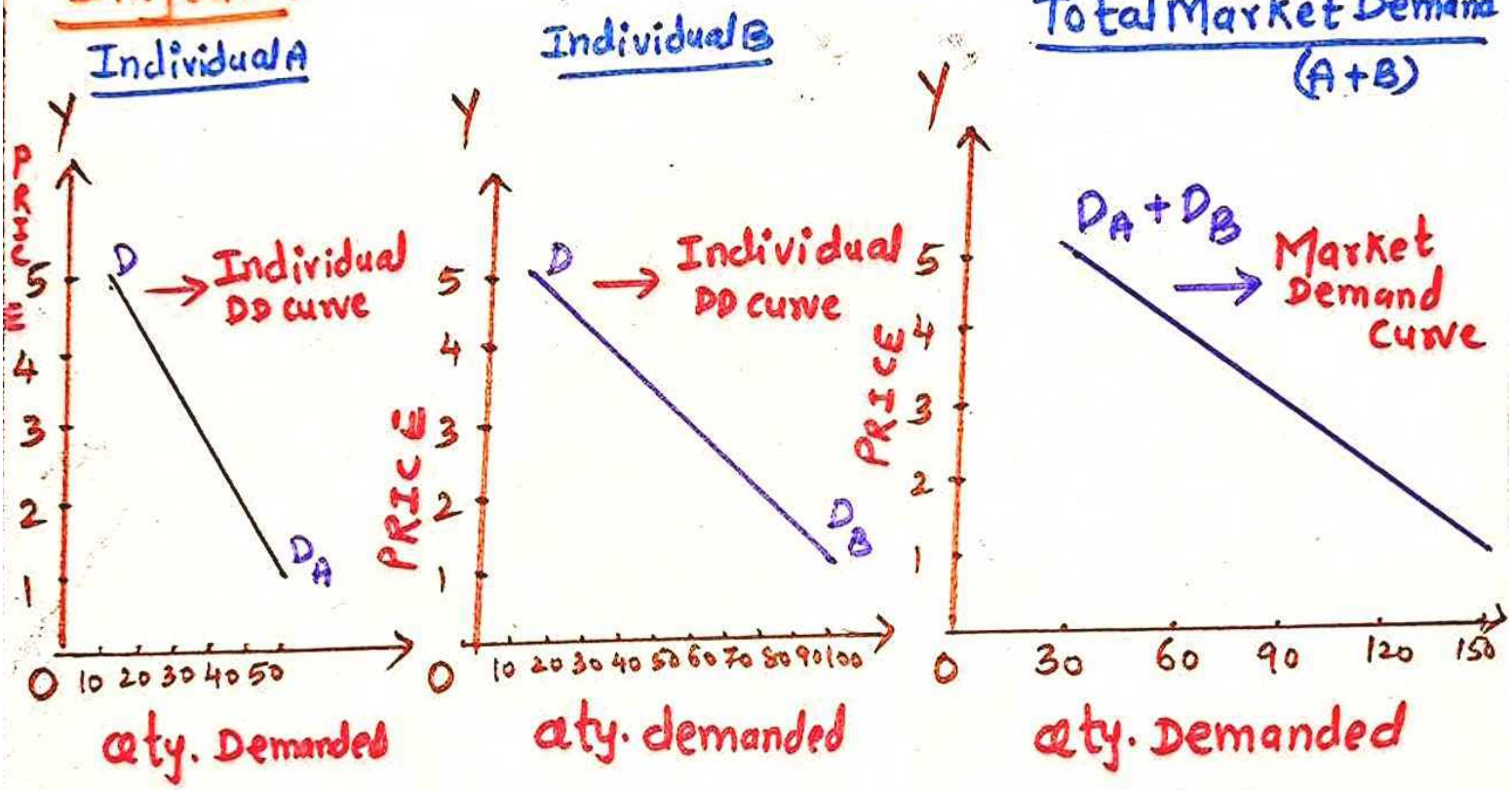
Price of Commodity	Qty. Demanded		Total Market Demand
	Individual - A	Individual - B	
₹ 5	10	20	30
₹ 4	20	40	60
₹ 3	30	60	90
₹ 2	40	80	120
₹ 1	50	100	150

1] In the above schedule we Observe that Consumer A and B demand different quantity due to different income. But both A and B demand more goods with Fall in Price.

2] When Price is very High i.e ₹5, Limited Quantity was demand in market i.e 30 units only.

3] But when Price is very Low i.e ₹1, Maximum Quantity was demanded in market i.e 150 Units.

Diagram:-



1] D_A is demand Curve of Individual A, is sloping downward from Left to Right.

2] D_B is demand Curve of Individual B, is sloping downward From Left to Right.

3] $D_A + D_B$ is Total Market Demand Curve sloping downward From Left to Right.

4) As Price and Qty. Demand has inverse Relationship so it has Negative Slope.

5] Individual demand Curve has Steeper slope due to Less Quantity.

6) Market Demand Curve has Flatter slope due to Large Quantity.

(D) Market Demand Function :-

Market demand function is the Relationship between the Quantity demanded and its determinants.

"Market demand function is the Functional Relationship between Demand of Commodity and its Determinants"

$$D_x = F(P_x, P_s, P_c, Y, A, T, E, C, I, S, PO_p)$$

i) - P_x = Price of Commodity X.
ii) - P_s = Price of Substitutes
iii) - P_c = Price of Complimentry goods
iv) - Y = Income of Consumer
v) - A = Advertisement Expenditure
vi) - T = Taste and Preferences of Consumer.
vii) - E = Consumer's Expectations about Future Prices
viii - C = Availability of Credit Facilities
ix) - I = Rate of Interest
x) - S = Socio-Cultural Factors
xi) - PO_p = Changes in Population

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(E) Important Points of Demand Function :-

1) Demand is Directly Related to some factors like - Income

2) Demand is inversely related to some Variables Like- Price

3) Demand function explain Functional Relationship between Quantity demanded and its Determinants

4) Some OF the Variable are easily Quantifiable- Example → Price of Commodity, Price of Substitutes, Income of Consumer, Size of Population etc.

5) But Some of the Variables are not easily Quantifiable Example → Taste and Preference, Future Expectations Consomers psychology etc.

6) Every firm have different degree OF Control over the different determinants

7) A Linear Demand function is mathematically written as- $D_x = a - bP_x$

D_x → qty. of Commodity X

a → intercept and Constant Parameter.

b → another Constat and slope which measure changes in demand.

(F) Example :-

$D_x = 100 - 5P_x$

IF Prices OF X are 2, 4, 5, 6 find out Quantity demanded?

Price OF Comm. X	Quantity Demanded = $D_x = 100 - 5P_x$
2	$100 - 5 \times 2$ $100 - 10 = 90$
4	$100 - 5 \times 4$ $100 - 20 = 80$
5	$100 - 5 \times 5$ $100 - 25 = 75$
6	$100 - 5 \times 6$ $100 - 30 = 70$

Q:3 Explain the Effect of Network Externalities on the market Demand?

OR Explain Bandwagon effect, Snob-effect and Veblen effect and Show their effect on market Demand Curve?

(A) Network Externalities in Market Demand :-

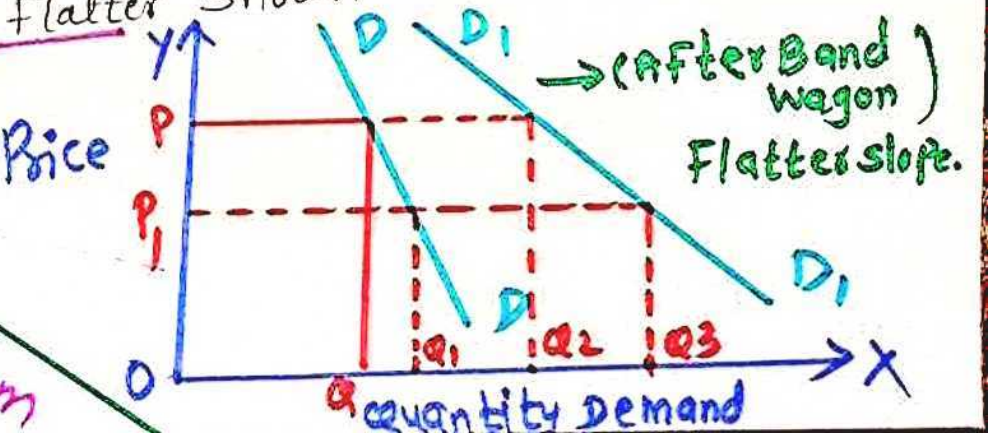
Due to Presence of Network Externalities, the Consumption decisions depends on the demand of other People.

The important Network Externalities are :—

1. Bandwagon Effect
2. Snob-Effect
3. Veblen Effect

1. Bandwagon Effect :- Sometimes People demand a Commodity because other Peoples are purchasing it due to New Fashion.

Some People gets influenced by filmstars, Cricketers, friends, Relatives, businessmen etc. so they buy more at High Price is called Bandwagon Effect or Positive Network Externality. This mostly found in fashion or Clothing. The Bandwagon effect makes the market demand Curve more Elastic or flatter shown in the diagram :—



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1) DD is demand curve before bandwagon effect. Here OQ Quantity is demanded at OP Price.
2) Due to Bandwagon effect, Demand Curve is shifted on Right Side- D_1D_1. It is Flatter or more elastic as Compare to DD Demand Curve.
3) Due to Bandwagon effect - OQ_2 Quantity is demanded at OP Price. But due to Fall in Price, OQ_3 Quantity is demanded at OP_1 Price.

Q_2Q_3 More Quantity effect due to Bandwagon.

(2) Snob-Effect :-

Snob-effect is the Opposite of Bandwagon Effect. Here Consomers demand different and Exclusive Product which is not consumed by many People. It is Negative Network Externality. This will make Market Demand Curve Steeper or Less Elastic in nature shown in Various Cases.

Example :- When many People are using Maruti Cars then Some People Demand FORDS, Mahindra, BMW, Audi etc. due to Snob effect.

Thus in Case of Snob-effect, demand Curve will be Very inelastic which shows that Change in Price do not bring Change in Quantity Demanded.

(3) Veblen Effect :-

This effect was introduced by Thorstein Veblen and Hence it is called Veblen Effect. When Rich wants to Purchase more expensive and Prestige goods at high Price due to maintain their Power and dignity.

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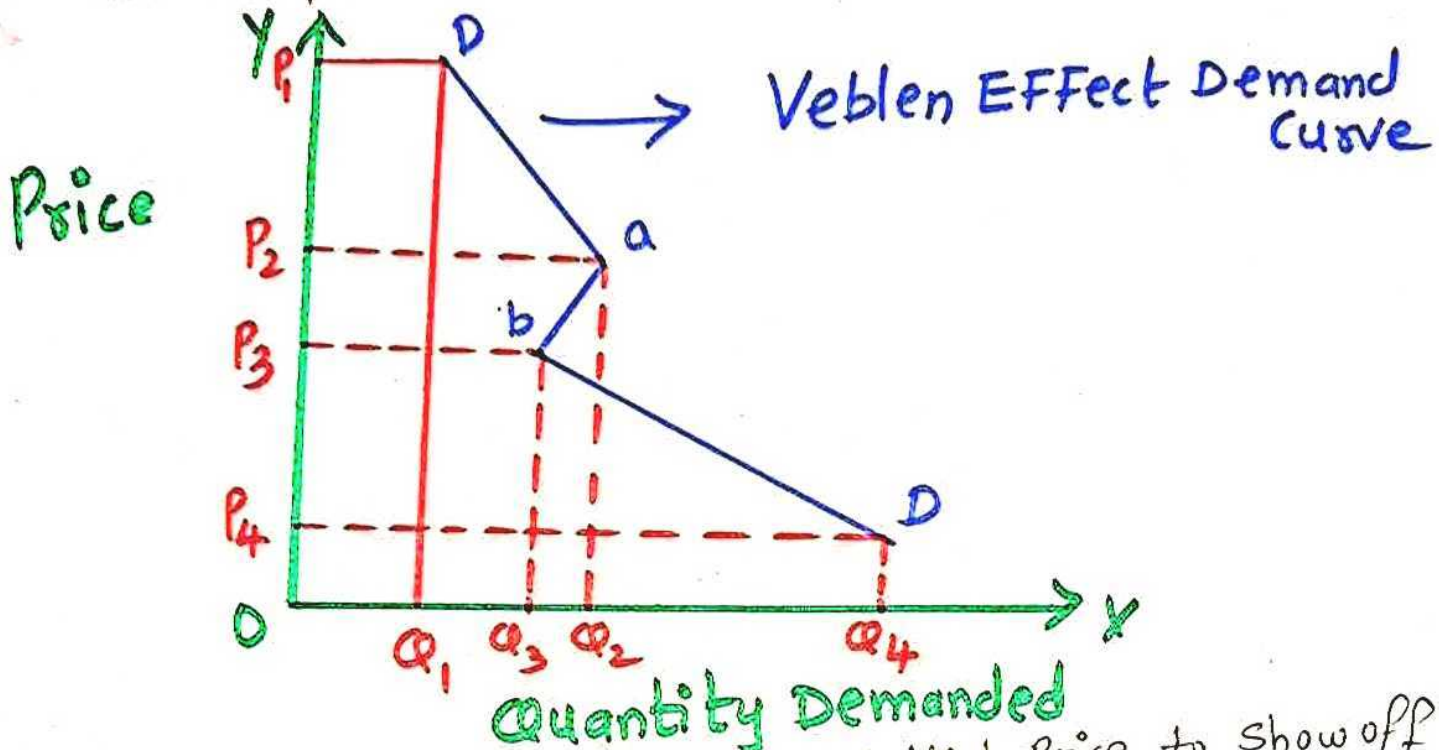
Example:- Expensive Cars, diamon Jewellery etc.

In Case of Veblen Effect, Demand Curve is less elastic and steeper but 'Z' shaped demand Curve.



1) Rich People demand, more goods at High Price to show off their status so Demand Curve is Less elastic. At Price OP_1, OQ_1 Quantity is demanded.

2) As Price Fall from P_1 to P_2, The Demand for goods increase along with Less elastic Demand to OQ_2.

3). But when Price Fall to P_3, Demand For Commodity decreased to Q_3 due to lose in Snob effect or status Symbol appeal.

4) But when Price Fall to P_4, It has to Compete with other Non-branded Products which makes the demand Curve more elastic..

Thus Demand Curve has the shape of 'Z' due to Veblen effect.

Q:4 Explain the theory of attributes and bring out its advantages and weaknesses?

(A) Theory of Attributes / charcteristic Theory of Consumer Behaviour :-

Theory of Attributes was developed by Kelvin Lancaster- in 1966 in his working Paper- "A New Approach to Consumer Theory."

According to Kelvin, People demand various goods due to their charcteristics, properties and attributes. These charcteristics Provide Utility to Consumers.

Example :- Relatives Prices of goods, Design, style, Comfort level, Performance, Durability, Reliability, fuel Consumption etc.

(B) Assumptions of Theory :-

1. All goods must have Various Charcteristics.
2. The Characteristics are measureable
3. The Characteristics along with Price and income determine Consumer Choice.
4. Different brands Possess them in different Proportions

(C) Example :-

Let us assome that we are Choosing between three brands of Mango Juice- Maaza, Frooti and Slice. Each one has a different combinations of Calories and Added Sugar in it- People demand, different brands as per their Taste, Quantity, Price, etc

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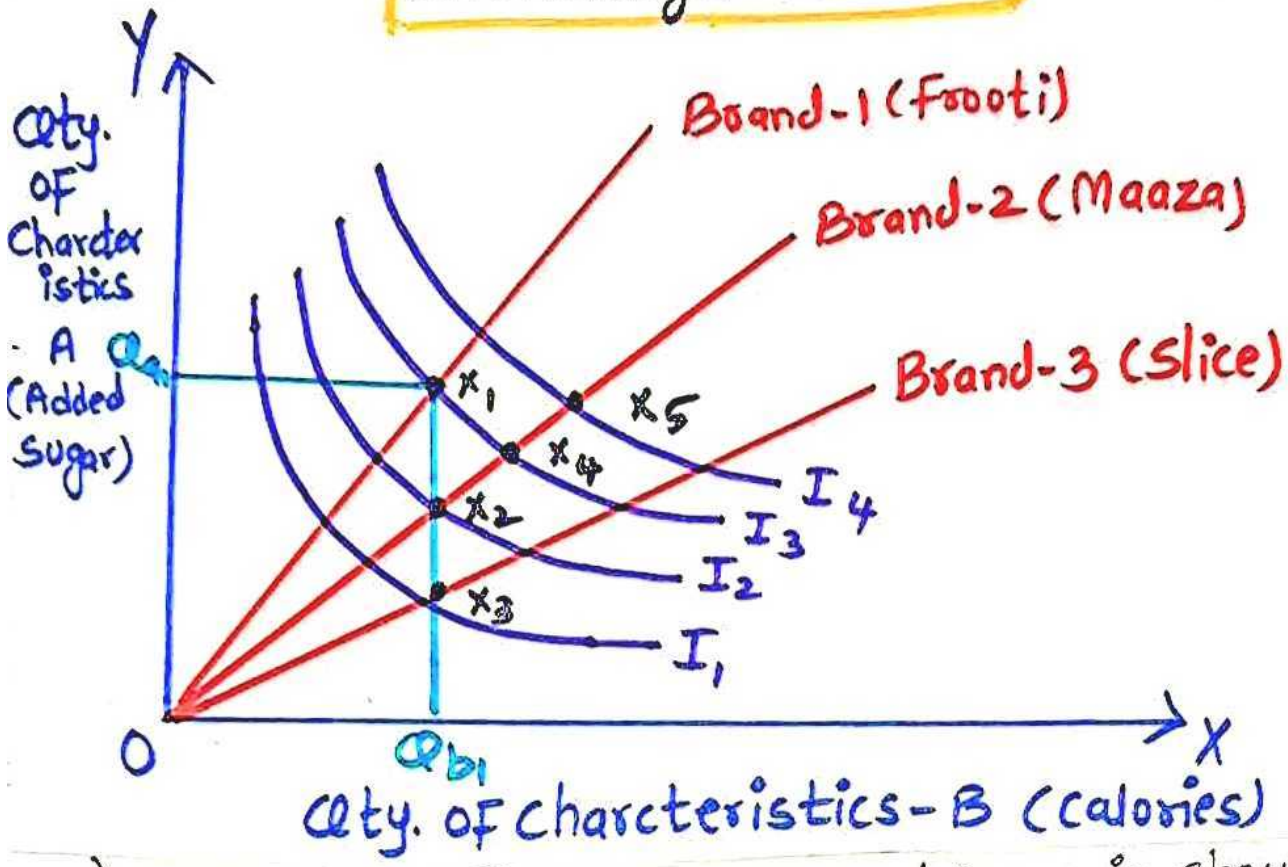

1) Quantity of Calories and Added sugar is shown on X-axis and Y-axis.
2) The Amount of Two characteristics given by three brands are shown by three Rays.
3) The Curves I_1, I_2, I_3 and I_4 are indifference Curves which shows different Combination of Two Charcteristics which Provide Utility to Consumers.
4) Higher Indifference Curve Provide Higher Utility to Consumer. like - I_4 Provide more Utility as Compare to I_1, I_2 and I_3.
5) Indifference Curves are Convex to Origin because they shows diminishing Marginal Rate of Substitution between Two Characteristics.
6) At Point x_1, Consumer is enjoying Q_a, of Charcteristic A and Q_{b_1} of Charcteristics B. of Brand-1.
7) Now Suppose with Same amount of money, a Consumer

Can enjoy X_1 of brand-1, X_2 of brand-2 and X_3 brand 3 But Consumer will select X_1 of brand-1 because it is on Higher indifference Curve.

5) Suppose Price of Brand-2 (Maaza) Falls Now with the given amount of money Consumer can move x_4 and x_5 Level. So here Consumer will shift from Brand-1 to Brand-2 due to higher Satisfaction.

(D) Advantages :-

1. **Brand Loyality :-** This theory explain brand Loyality. when Price of any brand changes slowly but People not Prefer to move from one brand to another. But when the Price is Changing heavily then People immediately shift to another brands.

2. **Multiple Choice :-** This theory Provide multiple Choice of goods to Consumers for enjoying more Utility.

3. **Nature of Substitute goods :-** This theory helps to Understand nature of Substitute goods.

Example :- The Close Substitutes have Similar Charcteristics so their rays are Closer. Hence Change in the Price can bring shift from one brand to its Close-Substitutes.

4) **Change in Quality :-** A Change in the Quality of goods Can be shown by Rotating its ray.

(E) Weakness :

1. **Few Characteristics Cannot Measured :-** Some Character istics Cannot be measured.
Example :- Taste, Preference, beauty, Entertainment Value etc. They are Subjective in nature.

2. **Consider only Two Characteristics :-** This theory has Considered only two Characteristics which are Plotted in diagram. But in Reality goods have Several Characteristics

Q:5 From the equation $1000-20P$ work the Quantity demanded for the Price of ₹5, ₹10, ₹20, and ₹25.

Price of Commodity	Qty. Demanded
₹ 5	$1000-20P$ ∴ $1000-100$ $1000-20\times5$ $= 900$
₹ 10	$1000-20P$ ∴ $1000-200$ $1000-20\times10$ $= 800$
₹ 20	$1000-20P$ ∴ $1000-400$ $1000-20\times20$ $= 600$
₹ 25	$1000-20P$ ∴ $1000-500$ $1000-20\times25$ $= 500$

Q:6 Select the most of appropriate answer From the alternatives given and Rewrite Sentences :—

1. A Fall in the Price of Commodity **increase the Consumer's Real income.**

a) increases the Consumer's nominal income.
b) increases the Consumers Real income
c) decreases the Consumer's Real income.

2] which of the following is not the assumption of Law of Demand ? No change in the Price of inputs.

a) Consumer's income does not Change
b) No change in Consumer's taste and Preferences
c) No change in the Price of inputs

3] A change in the Price of Commodity, with no change in Other determinants results in Change in quantity demanded

a) Change in quantity demanded
b) a shift in the demand curve
c) an increase or decrease in demand.

4] The bandwagon effect makes the market demand Curve to be more Elastic

a) Elastic b) inelastic c] steeper.

5] The Snob-effect makes the market demand Curve to be Less Elastic

a) Less elastic b) more elastic c) Flatter.

6] The Veblen effect give rise to Less Elastic market demand Curve.

a) Flatter b) Less elastic
c) no Change

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Q:7 State whether the Following Statements are True or false with Reasons :——

1. In the equation $D_x = a - bP_x$, a denote the slope of the demand curve.

Ans:- False. Reasons: Q:2 - D Part

2. In the equation $D_x = a - bP_x$, b denotes the slope of demand curve

Ans:- True. Reasons: Q:2 - D Part

3. The Law of Demand will not hold True in the absence of Certain assumption.

Ans:- True. Reasons. Law of Demand do not applicable in the absence of certain assumption. It is based on some condition which remain Contant.

Example :- i) No Change in Price of Substitutes or Complimenty goods.
ii) No Change in Taste, Preference and habits of Consumers.
iii) Consumer income Remain Same.
iv) No Change in consumers future expectation etc
v) No Change in Size of Population
vi) No Change in Distribution of income and wealth etc.

4) The Market Demand Curve is the horizontal Summation of Individual Demand Curve only if the Consumption decisions of Individuals are independent.

Ans:- True. Reasons. Q:2 - C Part

5] The band wagon effect makes the maket demand Curve to be Less elastic

Ans:- False. Reasons:- Q:3 A Part- 1st Point

6) Snob effect and Veblen effect cause the market demand curve to be Less elastic.

Ans:- True. Reasons:- Q:3 2nd and 3rd Point

7) According to theory of Attributes goods are demanded For their own Sake.

Ans:- False. Reasons:- Q:4-A Part.