ECONOMICS

BOOKS - RADHA BHUGANA ECONOMICS (HINGLISH)

CONSUMER'S EQUILIBRIUM

EXAMPLE

1. Calculate the MU from the following :

Quantity/Units Consumed of 'x'	TU_x (Utils)	MU_x (Utils)
1	10	10
2	19	9
3	27	8
4	34	7
5	40	6
6	38	-2

▶ Watch Video Solution

2. Calculate the MU from the following :

Quantity consumed of 'x'	1	2	3	4	6
TU_x (Utils)	40	60	78	94	108

▶ Watch Video Solution

3. Calculate total utility (TU)

Quantity x	1	2	3	4	5	6	7
MU (Utils)	10	8	6	4	2	0	-2

4. A consumer, Mr Aman is in state of equilibrium consuming two goods X and Y , with given prices P_X and P_Y.(a) What will happen if $\dfrac{MU_X}{P_X} > \dfrac{MU_Y}{P_Y}$? (b)What will happen if P_Y falls.

5. A consumer consumers only two goods X and Y. Marginal utilities of X and Y are 4 and 3 respectively. Price of X and price of Y is Rs.3 per unit. Is consumer in equilibrium ? What will be further reaction of the consumer ? Give reasons.

6. A consumer consumers only 2 goods X and Y. The marginal utilities of X and Y is 3. Prices of X and Y are Rs.2 and Rs.1 respectively. Is consumer in equilibrium ? What will be further reaction of the consumer ? Give reasons .

▶ **Watch Video Solution**

PRACTICAL APPLICATIONS

1. Find MU from the following schedule :

Quantity Consumed	1	2	3	4	5	6	7
TU (Utils)	10	16	19	21	22	22	20

▶ **Watch Video Solution**

2. Find MU from the following data :

Quantity Consumed	1	2	3	4	5	6
MU (Utils)	10	8	6	4	0	-2

▶ **Watch Video Solution**

3. Complete the following table :

Quantity consumed	1	2	3	4	5
TU (Utils)	50	--	120	--	150
MU (Utils)	--	40	--	20	--

▶ **Watch Video Solution**

4. Starting from initial situation of consumer's equilibrium if price of the commodity rises , where will consumer equilibrium be determined ?

▶ **View Text Solution**

5. Suppose burgers sell for Rs.10 each Shubham has already eaten 5 burgers. His marginal utility of one rupee is 5. Should he consumer more or stop ? Given that MU=50 utils.

6. Given below is the utility schedule of a consumer for commodity X. The price of the commodity is Rs.6 per unit. How many untils

should the consumer purchase to maximize his satisfaction.Given that 1 util=Rs.1.

Given reasons for your answer.

Consumption units	1	2	3	4	5	6
TU (Utils)	10	18	25	31	34	34

7. The following schedule gives the number of ice-creams consumed and the total utility derived from each level of consumption.Given that the price of ice-cream is fixed Rs.2 per

unit, determine the optimal level of consumption, assuming MU of a rupee is 2 utils. Give reasons.

No. of Icecreams	1	2	3	4	5	6	7	8
TU (Utils)	5	9	12	14	15	15	14	12

▶ **Watch Video Solution**

8. Given that income of a consumer is Rs.80, price of x=Rs.10 per unit and price of y=Rs.10 per unit. Find consumer's equilibrium.

Quantity	1	2	3	4	5	6	7	8
MU of a rupee (Utils)	11	10	9	8	7	6	5	4
MU of a rupee (Utils)	18	16	15	13	12	10	9	7

9. Given P_x =Rs.10 and P_y =Rs.40 and money income =Rs.150, find consumer equilibrium from

Quantity	1	2	3	4
MU_x	100	80	60	50
MU_y	300	280	240	200

10. A consumer has total money income of Rs.500 to be spent on two goods x and y with

prices of Rs.50 and Rs.10 per unit respectively. On the basis of the given information, answer the following question :

(a)Give the equation of the budget line for consumer.

(b)What is the value of slope of the budget line ?

(c)How many units can the consumer buy if he is to spend all his money income on good x ?

(d) How does the budget line change if there is a 50% falls in price of good y ?

11. A consumer has total money income of Rs.250 to be spent on two goods X and Y with prices of Rs.25 and Rs.10 per unit respectively.On the basis of the given information , answer the following questions :

(a) Given the equation of the budget line for the consumer.

(b)What is the value of slope of the budget line ?

(c)How many units can the consumer buy if he is to spend all his money income on good X ?

(d)How does the budget line change if there is a fall in price of good Y ?

12. A consumer consumes two goods .His income is Rs.50.P_x=Rs.8 each and P_y=Rs.5 each . Can he buy

(i)4 units of x and 3 unit of y ?

(ii)5 units of x and 2 units of y ?

(iii)Find MRS_{xy} at the point of equilibrium.

13. A consumer wants to buy two goods. The price of two goods are Rs.4 and Rs.5 respectively. The consumer's income is Rs.20.

(i)Write down the equation of budget line.

(ii)How much of good 1 cm the consumer consume, if he spends his entire income on that good ?

(iii)How much of good 2 can he consumer if he spends his entire income on that good ?

(iv)What is the slope of budget line ?

14. Given that a consumer's income is Rs.40 and the two goods are equally priced at Rs.10 , identify those bundles which cost him exactly Rs.40.

15. if a consumer has monotonic preferences , can she be indifferent between the bundles (10,8) and (8,6) ?

16. A consumer has monotonic preferences .

Rank her preferences (10,10) , (9,9) and (10,9) .

LET US RECAPITULATE

1. A consumer's satisfaction from a commodity

is maximum when MU is :

A. Equal to price

B. Less than price

C. More than price

D. None of these

Answer: A

▶ **View Text Solution**

2. Total utility falls when Marginal utility is

A. Zero

B. +ve

C. -ve

D. None of these

Answer: C

▶ **View Text Solution**

3. How many chocolates will you consume if these are free of cost, to achieve equilibrium

A. MU is +ve

B. MU is -ve

C. MU is zero

D. None of these

Answer: C

▶ **View Text Solution**

4. A budget set is the collection of all bundles of goods that a consumer wants to buy

▶ **View Text Solution**

5. A person who does not spend his entire income on purchase of 2 goods, stays on the Budget line.

6. Due to increase or decrease in income of a consumer, there is a parallel rightward or leftward shift in the Budget line, given that there is no change in prices of good 1 and good 2.

7. A budget set is a collection of such bundles of goods that give same satisfaction.

8. Identify which of the following is not true for the Indifference Curves theory. Give valid reasons for choice of your answer.

A. Lower indifference curve represents lower level of satisfaction.

B. Two indifference curves can intersect each other.

C. Indifference curve must be convex to origin at the point of tangency with the budget line at the consumer's equilibrium.

D. Indifference curves are drawn under the ordinal approach to consumer

equilibrium.

Answer: A::B::C::D

▶ **View Text Solution**

1. As long as Marginal utility is positive, total utility

A. remains constant

B. increases

C. falls

D. all of these

Answer: B

⏵ **View Text Solution**

2. Which of the following can be referred to as 'point of satiety' ?

A. Marginal Utility is negative

B. Marginal Utility is zero
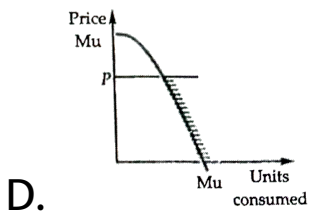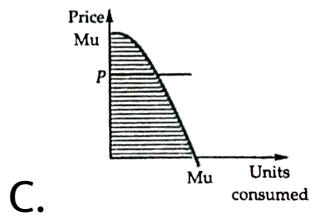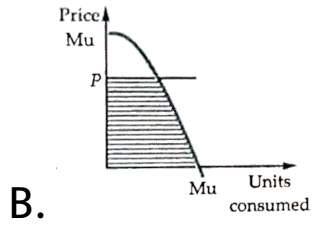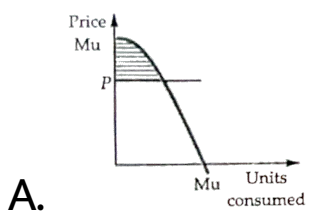
C. Total Utility is rising

D. Total Utility is falling

Answer: B

▶ **View Text Solution**

3. Which of the shaded area in the diagrams below represent total utility ?

A.

Price
Mu

P

Mu Units
consumed

B.

Price
Mu

P

Mu Units
consumed

C.

Price
Mu

P

Mu Units
consumed

D.

Price
Mu

P

Mu Units
consumed

Answer: C

▶ View Text Solution

4. The bundles that the consumer can purchase by spending his entire money income at given prices is represented by

A. budget line

B. budget set

C. consumption bundle

D. none of these.

Answer: A

▶ **View Text Solution**

5. Slope of budget line is

A. marginal opportunity cost

B. marginal rate of substitution

C. market rate of exchange

D. all of these

Answer: C

▶ View Text Solution

6. An indifference curve is

    A. convex to the origin

    B. concave to the origin

    C. a straight line curve

    D. none of these

Answer: A

▶ **View Text Solution**

7. An indifference schedule represents various bundles that give _____ level of satisfaction

A. unequal

B. equal

C. zero

D. none of these

Answer: B

▶ **View Text Solution**

8. If a consumer has monotonic preferences, which bundle would be preferred by him ?

A. (12,8)

B. (12,12)

C. (10,6)

D. (8,12)

Answer: B

▶ View Text Solution

9. The equation of budget line is:

A. $P_1 x_1 + P_2 x_2 = M$

B. $P_1 x_1 + P_2 x_2 \leq M$

C. $P_1 x_1 + P_2 x_2 > M$

D. none of these

Answer: A

▶ **View Text Solution**

10. If MRS is increasing throughout the indifference curve will be

A. downward sloping convex

B. downward sloping concave

C. downward sloping straight line

D. upward sloping convex

Answer: B

▶ View Text Solution

11. Consumer equilibrium through indifference curve analysis is based on

A. cardinal utility

B. marginal utility

C. ordinal utility

D. none of these

Answer: C

▶ View Text Solution

12. A consumer prefers to buy more of 'Y' as compared to 'X' when :

A. $MU_X = P_X$

B. $MU_X > P_X$

C. $\dfrac{MU_X}{P_X} < \dfrac{MU_Y}{P_Y}$

D. $\dfrac{MU_X}{P_X} > \dfrac{MU_Y}{P_Y}$

Answer: C

▶ **View Text Solution**

13. The situation of consumer's disequilibrium $\frac{MU_X}{P_X} > \frac{MU_Y}{P_Y}$ arise :

A. due to increase in consumption of good X

B. due to increase in price of good X

C. due to decrease in price of good Y

D. due to increase in price of good Y

Answer: D

▶ **View Text Solution**

14. As per determination of consumer's equilibrium theory, in order to arrive at consumer's equilibrium consumer can

A. decrease the price of the commodity

B. increase the price of the commodity

C. change the quantities of both the goods

D. increase the consumption of both the goods

Answer: C

OBJECTIVE

1. How is total utility derived from marginal utility

2. What is consumer equilibrium ?

3. What is Marginal rate of substitution (MRS)?

▶ View Text Solution

4. What is total utility at zero level of consumption ?

▶ View Text Solution

5. What is MU when TU is maximum ?

▶ View Text Solution

6. State the conditions of consumer equilibrium in case of indifference curve approach

> ▶ View Text Solution

7. What do all points indifference curve indicate ?

> ▶ View Text Solution

8. Give equation of the budget line.

▶ **View Text Solution**

9. Give equations for budget set and budget constraint.

▶ **View Text Solution**

10. How does the budget line change if consumer's income increases from Rs.20 to

Rs.40, given that prices of both the goods remain unchanged ?

View Text Solution

1. What is ordinal utility ?

View Text Solution

2. What is cardinal utility ?

3. When a consumer has got equality between marginal utility and price for a good, what is this condition known as ?

4. Why is indifference curve convex to the origin ?

5. State law of diminishing marginal utility.

▶ View Text Solution

6. "TU remains same always irrespective of change in MY". Defense refute

▶ View Text Solution

7. Suppose a consumer can afford to buy 6 units of good 1 and 8 units of good 2, if she spends her entire income. The prices of two goods are Rs.6 and Rs.8 respectively. What is the consumer's income ?

▶ View Text Solution

8. Can a consumer go beyond the budget line ?

▶ View Text Solution

1. How many units of a commodity will you consume, if you don't have to pay any price for it?

▶ **View Text Solution**

2. Starting from initial situation of consumer equilibrium, if price of the commodity rises,

where will consumer equilibrium be determined ?

▶ **View Text Solution**

3. What happens to the budget set and budget line if both the prices as well as the income double ?

▶ **View Text Solution**

4. Higher indifference curve represents higher level of satisfaction to the consumer'. Explain The statement also state the underlying assumption related to this property of indifference curve

▶ View Text Solution

5. Explain why an indifference curve is convex to the origin ?

▶ View Text Solution

1. (i)Determine the quantity of apples a consumer would buy at a given price in the market. Use cardinal utility analysis

(ii) What quantity of apples would he consume if apples are available free of cost?

▶ View Text Solution

2. What is the implication of budget line in a real life situation ?

 View Text Solution

3. Govt. of the country imposes tax on petrol usage by the people, what impact will this have on budget line of a consumer showing consumption of two commodities petrol and food items on it? What is policy implication behind tax imposition ?

4. Mr. Goyal has a budget of Rs.1,00,000 which he plans to spend on sweets and crackers on Diwali. He actually spent Rs.1,25,000 because of more expenditure on crackers. How will you show his planned expenditure and actual expenditure through budget line? Is this over expenditure justified ?

 View Text Solution

1. What do you mean by the budget set of a consumer ?

▶ View Text Solution

2. What is budget line?

▶ View Text Solution

3. Explain why the budget line is downward sloping

4. A consumer wants to consume 2 goods. Prices of goods are Rs.4 and Rs.5 respectively

The consumer's income is Rs.20

(i) Write down the equation of budget line.

(ii)How much of good 1 can the consumer consume if she spends her entire income on

that good?

(iii) How much of good 2 can she consume if she spends her entire income on that good?

(iv) What is slope of the budget line ?

5. What happens to the budget set if both the prices as well as income double given that P_x=Rs.4, P_y=Rs.5, M=Rs.20 ?

6. What do you mean by monotonic preferences ?

▶ **View Text Solution**

7. If a consumer has monotonic preferences, can she be indifferent between the bundles (10,8) and (8,6) ?

▶ **Watch Video Solution**

VERY SHORT

1. Define utility

View Text Solution

2. Define marginal utility.

View Text Solution

3. Define budget set

View Text Solution

4. Define indifference curve/indifference map

▶ View Text Solution

5. Define a Budget line

▶ View Text Solution

6. What is meant by monotonic preferences ?

▶ View Text Solution

7. Define slope of TU curve.

▶ View Text Solution

8. Define slope of budget line.

▶ View Text Solution

9. Define slope of indifference curve.

▶ View Text Solution

10. How is TU derived from MU ?

▶ View Text Solution

11. What is consumer's equilibrium ?

▶ View Text Solution

12. What is MU when TU is maximum ?

▶ View Text Solution

13. State the law of diminishing marginal utility.

▶ View Text Solution

14. Give consumers optimum condition in case of one good/two goods using utility approach

▶ View Text Solution

15. Give consumer's optimum condition from indifference curve approach

▶ View Text Solution

16. What is law of diminishing marginal utility ?

▶ View Text Solution

17. Define indifference curve.

18. When is a consumer said to be rational ?

SHORT ANSWER

1. Define marginal utility. State the law of DMU

2. What is consumer's equilibrium ? State its condition in case of a single commodity

3. Define utility. Explain the relationship between TU and MU curves

Or

Define utility Explain the law of DMU

Or

Explain the law of DMU with the help of an example.

Or

Explain the law of diminishing marginal utility using TV schedule.

▶ **View Text Solution**

4. CONSUMER\'S EQUILIBRIUM (SINGLE COMMODITY CASE)

▶ **Watch Video Solution**

5. CONSUMER\'S EQUILIBRIUM (TWO COMMODITY CASE)

▶ Watch Video Solution

6. CONSUMER\'S EQUILIBRIUM BY INDIFFERENCE CURVE ANALYSIS

▶ Watch Video Solution

7. Explain three properties of indifference curve

8. What will happen to budget line when :

(a) Price of good 1 in rises

(b) Price of good 2 falls

(c) Money income of the consumer rises

9. A consumer, Mr Aman is in state of equilibrium consuming two goods X and Y , with given prices P_X and P_Y.(a) What will happen if $\dfrac{MU_X}{P_X} > \dfrac{MU_Y}{P_Y}$? (b)What will happen if P_Y falls.

10. Derive the law of demand from the single commodity equilibrium condition "marginal utility-price"

11. A consumer consumes only two goods X and Y. MU of X and Y are 3 and 4 respectively. Prices of X and Y are Rs.4 per unit each. Is consumer in equilibrium ? What will be further reaction of the consumer ? Give reasons

▶ **Watch Video Solution**

12. CONSUMER\'S EQUILIBRIUM BY INDIFFERENCE CURVE ANALYSIS

13. Why is an indifference curve negatively sloped ?

14. Explain the meaning of budget set and budget line

15. Explain the meaning of budget line. What can cause a change in it

▶ View Text Solution

16. How will decrease in price of 'X' affect consumer equilibrium when the consumer consumes two goods X' and 'Y ?

▶ View Text Solution

LONG ANSWER

1. Explain the shift in budget line.

▶ **View Text Solution**

2. CONSUMER\'S EQUILIBRIUM (SINGLE COMMODITY CASE)

▶ **Watch Video Solution**

3. MEANING AND ASSUMPTIONS OF INDIFFERENCE CURVE

● **Watch Video Solution**

---

4. CONSUMER\'S EQUILIBRIUM BY INDIFFERENCE CURVE ANALYSIS

● **Watch Video Solution**

---

5. A consumer consumes only two goods, For a consumer to be in equilibrium, why must MRS be equal to the ratio of prices of two goods

● **View Text Solution**

6. Explain the following

(a) Why is an IC (i)downward sloping (ii) convex.

(b) Why does higher IC represent a higher level of satisfaction ?

> ▶ **View Text Solution**

7. Complete for MU Also show relation between TU and MU diagrammatically using

the values from this table

Quantity Consumed	1	2	3	4	5	6
TU (Utils)	38	46	50	53	53	50

▶ **Watch Video Solution**

8. CONSUMER\'S EQUILIBRIUM BY INDIFFERENCE CURVE ANALYSIS

▶ **Watch Video Solution**

9. (a) What is a budget line ? What does the point on it indicate in terms of prices?

(b) A consumer consumes x and y. Her money income is Rs.24 and the prices of x and y are Rs.4 and Rs.2 respectively. Answer the following questions:

(i) Can the consumer afford a bundle 4x and 5y?

(ii) What will be MES_{xy}, when the consumer is in equilibrium ? Explain.

10. What are monotonic preferences ? Explain why is an IC (i) downward sloping and (ii) convex

11. A consumer consumes only two goods X and Y both priced at Rs.2 per unit. If the consumer chhooses a combination of the two goods with Marginal Rate of Substitution equal to 2, is the consumer in equilibrium ?

Why or why not ? What will a rational consumer do in this situation ? Explain.

12. A consumer consumes only two goods X and Y whose prices are Rs.5 and Rs.4 respectively. If the consumer chooses a combination of the two goods with marginal utility of X equal to 4 and that of Y equal to 5, is the consumer in equilibrium ? Why or why

not what will a rational consumer do in this situation ? Use utility analysis.

▶ **Watch Video Solution**

13. Explain the three properties of the indifference curves.

▶ **View Text Solution**

1. Derive MU from Total Utility Schedule given below :

Units	1	2	3	4	5	6
TU	40	70	90	100	100	80

> ▶ **Watch Video Solution**

2. An individual's MU schedule is given below. Derive total utility from it.

Units	1	2	3	4	5	6
MU	16	12	10	8	0	−4

> ▶ **Watch Video Solution**

3. Let price of a commodity X be Rs. 10. Marginal utility (in terms of money for 5 units is given as

Units	1	2	3	4	5
MU_x (₹)	16	10	4	2	1

How many units should a consumer purchase, so that his satisfaction, is maximum ?

▶ Watch Video Solution

4. Utility schedule of a consumer is given as :

Units	1	2	3	4	5
MU	18	15	8	6	4

If the given commodity is sold for Rs.4 and MU of one rupee is 2 utils, how many units will a consumer purchase to maximise his satisfaction ?

> ▶ **Watch Video Solution**

5. Following is the MU schedule for goods X and Y. Both the goods are priced at Rs.1 and

money income of an individual is Rs.5. How many units of both commodities should he purchase to maximise his total utility ?

Units	1	2	3	4	5	6
MU_X	11	10	9	8	7	6
MU_Y	8	7	6	4	3	2

▶ **Watch Video Solution**

6. The MU schedule for goods A and B is given . Price of both the goods is Rs.1 each and income of Mr. Narendra is assumed to be Rs. 6. How many units of both the goods should be purchased by him so that his total utility is

maximised ?

Units	1	2	3	4	5	6
MU_A	14	12	10	6	4	2
MU_B	13	12	10	3	2	1

▶ **Watch Video Solution**

7. Suppose a consumer can buy 6 units of good A and 2 units of good B when he spends his entire income. Price of good A is Rs.10 and that of good B is Rs.8. Calculate money income of consumer.

▶ **Watch Video Solution**

8. Let there be three bundles containing good X and Y , Bundle (20,10) , Bundle (20,20) and Bundle (8,20). If a consumer has monotonic preferences, which bundle will be preferred by him ?