

CBSE Class 11
Economics
Sample Paper 05 (2019-20)

Maximum Marks: 80

Time Allowed: 3 hours

General Instructions:

- i. All the questions in both sections are compulsory. Marks for questions are indicated against each question.
 - ii. Question numbers 1 - 10 and 18 - 27 are very short-answer questions carrying 1 mark each. They are required to be answered in one word or one sentence each
 - iii. Question number 11 - 12 and 28 - 29 are short-answer questions carrying 3 marks each. Answers to them should not normally exceed 60-80 words each
 - iv. Question number 13 - 15 and 30 - 32 are also short-answer questions carrying 4 marks each. Answers to them should not normally exceed 80-100 words each
 - v. Question number 16 - 17 and 33 - 34 are long answer questions carrying 6 marks each. Answers to them should not normally exceed 100-150 words each
 - vi. Answer should be brief and to the point and the above word limit be adhered to as far as possible.
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Section A

1. Fill in the blanks:

_____ of transformation is the slope of production possibility curve.

2. What is variable?

3. The correlation coefficient will be -1 if the slope of the straight line in a scatter diagram is:

- a. Perfectly Negative
- b. None of these
- c. Zero

d. Positive

4. What is the main demerit of spearman's rank method?

OR

Mention the principal short coming of scatter diagram as a method of estimating correlation.

5. Array gives some orders to data by placing the

- a. Both
- b. Lowest magnitude first followed by other magnitudes in ascending order
- c. Highest magnitude first followed by other magnitudes in descending order
- d. None

6. Fill in the blanks:

The impact of change in the price of a commodity with less weight in the index will be _____ on index number.




7. State true or false:

The index number for the base year depends upon price relatives of the current year.

8. Fill in the blanks:

A _____ is the graphical representation of a continuous frequency distribution.

9. Match the following:

(a) A series of statistical data with more than a two-variable is known as	(i) Univariate distribution
(b) The sign  signifies that an item occurs	(ii) Eight times
(c) Tally bars ( ) show that in a series an item occurs	(iii) Five times in a series
(d) The frequency distribution of a single variable is called	(iv) Multivariable

10. Fill in the blanks:

_____ deals with laws, principles, theories and facts of economics.

11. Differentiate between quantitative and qualitative data.
12. Graphically, locate the mode.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Number of Students	5	10	20	25	20	10	5

OR

State some special properties of the arithmetic mean.

13. Calculate mean deviation and coefficient of mean deviation from mean in the following example by taking 11 as assumed mean. $X = 5, 8, 11, 12, 14$.
14. Mr. X works as a data specialist in XYZ Ltd. In order to show rosy picture for the performance of his department, he mentioned only the positive points and did not show some of the major issues like lack of discipline and lack of automation of processes in his department. Which value is missing in this case?

OR

A manager was required to submit the report of components of cost to his senior. Cost had reduced in absolute terms but increased in percentage. He used sub-divided bar diagram to present the data. Do you think there was some motive behind it? Which diagram will you recommend to be used?

15. Find out mean deviation of the following data.

Items	5	10	15	20	25	30	35	40
Frequency	8	16	18	22	14	9	6	7

16. Calculate mode in the following distribution.

Marks	40-49	50-59	60-69	70-79	80-89	90-99
Number of Students	12	30	24	20	12	2

OR

The following series relates to the daily income of workers employed in a firm.
Compute

- i. highest income of lowest 50% workers.
- ii. minimum income earned by top 25% workers.
- iii. maximum income earned by lowest 25% workers.

Daily Income (in Rs.)	Number of Workers
10-14	5
15-19	10
20-24	15
25-29	20
30-34	10
35-39	5

17. Calculate Karl Pearson's coefficient of correlation between the following two series by short-cut method.

X	24	27	28	28	29	30	32	33	35	35	40
Y	18	20	22	25	22	28	28	30	27	30	22

18. Define Marginal Rate of Transformation (MRT).

19. State true or false:

A rational consumer prefers to operate in stage two of returns to factor.

20. Match the following:

(a) Total utility is maximum when	(i) MRS is constant
(b) The consumer is in equilibrium at a point where the budget line	(ii) Right angled triangle formed by the budget line with the axes.
(c) Budget set is	(iii) Is tangent to an

(d) If indifference curve is straight line downward sloping,	(iv) Marginal utility is zero.
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21. Market supply is best defined as

- a. Horizontal summation of all individual quantity supplied at a given price
- b. Horizontal summation of all individual quantity supplied at various prices
- c. Vertical summation of all individual quantity supplied at a given price
- d. Vertical summation of all individual quantity supplied at various prices

22. Fill in the blanks:

_____ economics deals with the actual facts without making any value judgments.

OR

Fill in the blanks:

_____ is a process of using up of goods and services to satisfy human wants.

23. Fill in the blanks:

Microeconomics is also called _____.

24. According to the law of diminishing marginal utility, _____?

- a. Additional consumption always yields negative utility
- b. Additional consumption leads to lower average total utility
- c. Additional consumption always yields extra utility
- d. After a point any addition in the consumption causes a reduction in total utility.

25. Fill in the blanks:

A _____ are market by which buyers and seller are brought together.

26. The central problems of an economy are due to

- a. Limited choice
- b. Unlimited choice
- c. Scarce resources

d. Unlimited resources

27. A supply schedule is best defined as

- a. Tabular representation of quantity supplied at various prices
- b. Tabular representation of quantity supplied at keeping prices constant
- c. Tabular representation of quantity supplied at various profit levels
- d. Graphical representation of quantity supplied at a particular price only

28. There are no selling costs under perfect competition. Why?

OR

Explain why there are only a few firms in an oligopoly market?

29. Price Elasticity of Demand of a good is (-) 1. The consumer spends Rs 50 on the good at the prevailing price. When price changes, he buys 25 units. What is the new price?

Use the Total Expenditure Method of calculating Price Elasticity of Demand to answer this question.

30. Given below is a cost and revenue schedule of a producer. At what level of output is the producer in equilibrium. Give reason for your answer.

Output (units)	Price (Rs)	Total Cost (TC in Rs)
1	10	13
2	10	22
3	10	30
4	10	38
5	10	47
6	10	57
7	10	71

31. Draw diagrams showing elasticity of demand equal to:

- i. zero

- ii. one and
- iii. infinity.

OR

Consumer's demand curve is the same as his MU curve. Explain using a suitable diagram.

- 32. A consumer spends Rs 400 on a good priced at Rs 8 per unit. When its price rises by 25%, the consumer spends Rs 500 on the good. Calculate the Price Elasticity of Demand by the percentage method.
- 33. Is a producer at equilibrium under the following situations?
 - i. When Marginal Revenue is greater than Marginal Cost.
 - ii. When Marginal Revenue is equal to Marginal Cost. Give reasons for your answer.
- 34. Market for a good is in equilibrium. The demand for the good decreases. Explain the chain of effects of this change.

OR

Show the determination of market equilibrium with the help of demand and supply schedule.

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Solution

Section A

1. Marginal rate

2. Variable is a characteristic which is capable of being measured and capable of changing in its value from time to time.

3. (a) Perfectly Negative

Explanation: if all the points of scatter diagram fall on a straight line with negative slope, then the correlation is said to be perfectly negative, i.e. $r = -1$.

4. This method can not be employed for finding out correlation in a grouped frequency distribution.

1. This method cannot be used for finding out correlation in a grouped frequency distribution.

2. Where the number of items exceeds 30 the calculations become quite tedious and require a lot of time. Therefore, this method should not be applied where N exceeds 30 unless we are given the ranks and not the actual values of the variable.

OR

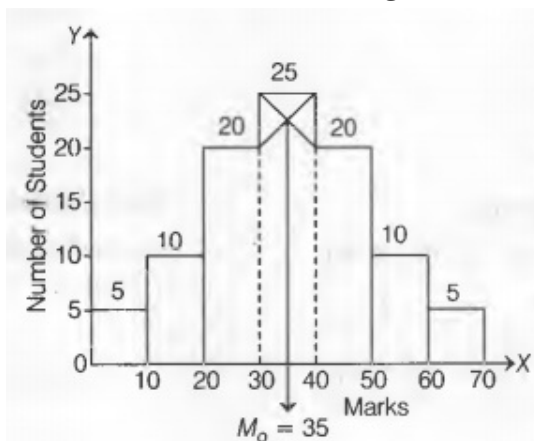
Scattered diagram does not indicate the exact numerical value of correlation.

5. (a) Both Explanation:

A Frequency array is an array of frequencies according to variate values, that is to say, a frequency distribution. The term “array” is often used for the individual frequency distributions which form the separate rows and columns of a bivariate frequency table. The raw data, when put in ascending or descending order of magnitude, is called an array or array data.

6. Small

7. False
8. Histogram
9. (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)
10. Positive Economics
11. The variables which can be expressed in numerical terms are known as quantitative variables, and data collected on quantitative variables is known as quantitative data. On the other hand, variables which cannot be expressed in quantitative terms are called qualitative variables and data on qualitative variables is called qualitative data.
12. At first, we make the histogram of the given data. Here, maximum height of rectangle is 25. So, modal class range is 30-40.



From the above graph, it is clear that the value of mode is 35.

OR

Some special properties of the arithmetic mean are

- i. The sum of deviations of the observations from their arithmetic mean is always zero. Due to this property, arithmetic mean is characterised as the centre of gravity.
- ii. The product of arithmetic mean and the number of values on which the mean is based equal to the sum of all given values. Symbolically,

$$n\bar{x} = \sum X \quad \left[\because \bar{x} = \frac{\sum X}{n} \right]$$
- iii. It is affected both by a change in origin and change in scale.
- iv. The sum of the squares of the deviation of a set of values is minimum when taken

from mean.

- v. If each observation of a series is increased or decreased by a constant, say k, then the arithmetic mean of the new series also get increased or decreased by k.

13. Calculation of Mean Deviation and its Coefficient from Mean (Short-cut method). Here it is already given that Assumed mean is 11. So we can take out the deviation from assumed mean and its total as given in the table below.

Value (X)	Deviation from Assumed Mean $ D = (X - A)$, A = 11
5	6
8	3
11	0
12	1
14	3
$\Sigma X = 50$ n = 5	$\Sigma D = 13$

The given series is an individual series and we have $n = 5$, $\Sigma X = 50$, $\Sigma |D| = 13$, $A = 11$.

$$\bar{X} = 50/5 = 10$$

Number of items below the actual arithmetic mean $= (\Sigma f_B) = 2$ (There are two items, 5 and 8)

Number of items above the actual arithmetic mean $= (\Sigma f_A) = 3$ (The count of items above the mean is 3, i.e. 11, 12, 14)

Now, Mean deviation from Assumed Mean

$$\begin{aligned} MD_{\bar{x}} &= \frac{\Sigma |D| + (\bar{X} - A)(\Sigma f_B - \Sigma f_A)}{n} \\ &= \frac{13 + (10 - 11)(2 - 3)}{5} = \frac{14}{5} = 2.8 \end{aligned}$$

Hence, Mean deviation from Mean $(MD_{\bar{X}}) = 2.8$

and Coefficient of Mean Deviation from Mean

$$= \frac{MD_{\bar{X}}}{\bar{X}} = \frac{2.8}{10} = 0.28, \text{ where}$$

$MD_{\bar{X}}$ = Mean Deviation from Mean, and

\bar{X} = Mean

14. The value of transparency is missing in this case. Mr X should have ensured that he should have mentioned the areas of improvement in his department so that the action could be taken as regards those points.

OR

Yes, there was a motive of misrepresentation and manipulation of data. It reflects dishonesty of the manager. In my opinion, he should have used either percentage bar diagram or pie chart as both show relative changes and would have shown the true picture.

15. **Calculation of Mean Deviation from Arithmetic Mean - The given series is a discrete series. We have been given X and f. We have to take out the sum of fX. Then the deviation has to be calculated. Deviation is represented by |D|. And then we find out the sum of f|D|.**

X	Frequency(f)	fX	$ D = X - \bar{X} , \bar{X} = 20.20$	$f D $
5	8	40	15.2	121.6
10	16	160	10.2	163.2
15	18	270	5.2	93.6
20	22	440	0.2	4.4
25	14	350	4.8	67.2
30	9	270	9.8	88.2
35	6	210	14.8	88.8
40	7	280	19.8	138.6
	$\Sigma f = 100$	$\Sigma fX = 2020$		$\Sigma f D = 765.6$

$$\bar{X} = \frac{\Sigma fX}{\Sigma f} = \frac{2020}{100} = 20.20 = \text{Arithmetic Mean.}$$

$$\text{Mean deviation from Mean } (MD_{\bar{X}}) = \frac{\Sigma f|D|}{\Sigma f}$$

$$= \frac{765.6}{100} = 7.656$$

16. 1. All the given inclusive series will be converted into an exclusive series:
- To convert the inclusive series into exclusive series ;
Correction factor = $(50-49)/2=0.5$
This is added to the upper limit and subtracted from the lower limit of the class.
2. Now, after conversion of series, mode will be determined.

Marks	Number of Students (f)
39.5-49.5	12
49.5-59.5	30
59.5-69.5	24
69.5-79.5	20
79.5-89.5	12
89.5-99.5	2

- The modal class is not clear by inspection.
- Although, class interval 49.5-59.5 has the highest frequency 30, yet the greatest concentration of items is around class interval 59.5-69.5 (with a frequency of 24.)
- Therefore, we will find mode by the method of grouping.

Grouping Table

Marks (X)	Frequency (f)					
	I	II	III	IV	V	VI
39.5-49.5	12	42		66		
49.5-59.5	30		54		74	
59.5-69.5	24	44				56
69.5-79.5	20					

79.5-89.5	12	14	32	34	
89.5-99.5	2				

Analysis Table

	Frequency (f)					
	39.5-49.5	49.5-59.5	59.5-69.5	69.5-79.5	79.5-89.5	89.5-99.5
I		√				
II			√	√		
III		√	√			
IV	√	√	√			
V		√	√	√		
VI			√	√	√	
Total	1	4	5	3	1	

From the analysis table, the modal class is 59.5-69.5. The frequency of this group is 24.
So,

$$\text{Mode}(M_o) = l_1 + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times c$$

But in this case, when f_1 (24) is less than f_0 (30), $(f_1 - f_0)$ will be negative and because of this modal value will lie outside the group.

In such cases, calculation of mode is done using the following formula,

$$M_o = l_1 + \frac{f_2}{f_0 + f_2} \times c$$

$$\Rightarrow M_o = 59.5 + \frac{20}{30+20} \times 10$$

$$\Rightarrow M_o = 59.5 + (0.4 \times 10)$$

$$\Rightarrow M_o = 59.5 + 4$$

$$\Rightarrow M_o = 63.5$$

Therefore, the mode of the given distribution is 63.5

OR

Daily Income	Exclusive Group	Number of Workers (f)	Cumulative Frequency (cf)
10-14	9.5-14.5	5	5
15-19	14.5-19.5	10	15
20-24	19.5-24.5	15	30
25-29	24.5-29.5	20	50
30-34	29.5-34.5	10	60
35-39	34.5-39.5	5	65
		$n = \Sigma f = 65$	

Calculation of Quartiles

(i)	(ii)	(iii)
The second quartile is the 50th percentile or the Median	The <i>third quartile</i> corresponds to the value that lies halfway between the median and the highest value in the distribution. It, therefore, marks the region which encloses the 75% of the initial data or 25% of the end data.	The <i>first quartile</i> corresponds to the value that lies halfway between the median and the lowest value in the distribution. Hence, it marks the region which encloses 25% of the initial data.
To find the highest income of the lowest 50% of workers, we calculate second quartile i.e., median	To find the minimum income earned by the top 25% of workers, we calculate upper quartile (Q_3).	To find the maximum income earned by the lowest 25% workers, we calculate lower quartile (Q_1)

(M)		
m = size of $\left(\frac{n}{2}\right)$ th item $= \left(\frac{65}{2}\right)$ th item = 32.5th item 32.5th items lie in class 24.5-29.5 $M = l_1 + \frac{\frac{n}{2} - cf}{f} \times c$ $= 24.5 + \frac{32.5 - 30}{20} \times 5$ $= 24.5 + \frac{2.5}{20} \times 5$ $= 24.5 + 0.6$ $\Rightarrow M = 25.1$	$Q_3 = \text{Size of } 3 \left(\frac{n}{4}\right)^{th} \text{ item} =$ $\left(\frac{3 \times 65}{4}\right)$ th item = 48.75th item 48.75th item lies in class interval 24.5-29.5 $\therefore Q_3 = l_1 + \frac{\frac{3}{4}n - cf}{f} \times c$ $= 24.5 + \frac{48.75 - 30}{20} \times 5$ $= 24.5 + \frac{18.75 \times 5}{20}$ $= 24.5 + 4.7$ $\Rightarrow Q_3 = 29.2$	$Q_1 = \text{Size of } \left(\frac{n}{4}\right)$ th item $= \left(\frac{65}{4}\right)$ th item = 16.25th item 16.25th item lies in class interval 19.5-24.5 $Q_1 = l_1 + \frac{\frac{n}{4} - cf}{f} \times c$ $= 19.5 + \frac{16.25 - 15}{15} \times 5$ $= 19.5 + \frac{1.25 \times 5}{15}$ $= 19.5 + 0.42$ $\Rightarrow Q_1 = 19.92$

17.

X	$dx(X - A), A = 32$	dx^2	Y	$dy(Y - A), A = 25$	dy^2	$dx dy$
24	-8	64	18	-7	49	56
27	-5	25	20	-5	25	25
28	-4	16	22	-3	9	12
28	-4	16	25	0	0	0
28	-4	16	22	-3	9	12
29	-3	9	22	-3	9	9
30	-2	4	28	3	9	-6
32	0	0	28	3	9	0
33	1	1	30	5	25	5
35	3	9	27	2	4	6
40	8	64	22	-3	9	-24
	$\Sigma dx = -18$	$\Sigma dx^2 = 224$		$\Sigma dy = -11$	$\Sigma dy^2 = 157$	$\Sigma dx dy = 95$

$$\begin{aligned}
 r &= \frac{n\sum dxdy - (\sum dx)(\sum dy)}{\sqrt{\sum dx^2 \cdot n - (\sum dx)^2} \times \sqrt{\sum dy^2 \cdot n - (\sum dy)^2}} \\
 &= \frac{11 \times 95 - (-18)(-11)}{\sqrt{224 \times 11 - (-18)^2} \times \sqrt{157 \times 11 - (-11)^2}} \\
 &= \frac{1045 - 198}{\sqrt{2464 - 324} \times \sqrt{1727 - 121}} = \frac{847}{\sqrt{2140} \times \sqrt{1606}} = \frac{847}{46.26 \times 40.07} = \frac{847}{1853.64} = 0.456 \text{ (approx)}
 \end{aligned}$$

- **Therefore, Karl Pearson's coefficient of correlation between X and Y is 0.456**
- **Interpretation: It shows medium degree of positive correlation between X and Y series.**

18. Marginal rate of transformation is the ratio of a number of units of a good sacrificed to produce an additional unit of another commodity. It is also called the Marginal Opportunity cost and it is the slope of PPC. For eg. If a producer is producing 5 units of commodity X and 1 unit of commodity Y and he wants to increase the production of Y from 1 to 2. For this he decides to sacrifice 3 units of commodity X. So here the MRT is 3:1 as he is sacrificing 3 units of commodity X for producing one additional unit of commodity Y.
19. True, A rational producer prefers to operate in stage two of TF, because TP is maximum here.
20. (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)
21. (b) Horizontal summation of all individual quantity supplied at various prices
Explanation: It is the tabular statement showing various quantities of a commodity that all the producers are willing to sell at various levels of price during a given period of time.
22. Positive

OR

Consumption

23. Price Theory
24. (d) After a point any addition in the consumption causes a reduction in total utility.

Explanation:

As per law of diminishing marginal utility, as the consumer goes on consuming MU derived from each successive unit goes on falling, becomes zero and finally turns negative

25. Market

26. (c) Scarce resources

Explanation: Central economic problem asserts that an economy's finite resources are insufficient to satisfy all human wants and needs. It assumes that human wants are unlimited, but the means to satisfy human wants are scarce.

27. (a) Tabular representation of quantity supplied at various prices Explanation:

Price	quantity supplied
1	10
2	15
5	25

In this schedule, we can see that as the price of the commodity increases, its supply also increases

28. The Perfect Competition is a market structure where a large number of buyers and sellers are present, and all are engaged in the buying and selling of the homogeneous products at a single price prevailing in the market.

- i. Selling costs are costs incurred by a firm to promote its sales.
- ii. Under perfect competition, firms produce homogeneous products which are similar in size, colour, packing, quality etc. So, firms need to spend money to distinguish their product from other firm's product.
- iii. A firm under perfect competition faces a horizontal straight-line demand curve. It can sell whatever amount it wishes to sell of homogeneous goods at the existing price. So, selling costs are not required.

OR

The Oligopoly Market is characterized by few sellers, selling the homogeneous or differentiated products. The Oligopoly market structure lies between the pure monopoly and monopolistic competition, where few sellers dominate the market and have control over the price of the product. There are only a few firms operating in oligopoly because of the following reasons:

- i. Oligopolistic market generally exists for those products, the manufacturing of which requires a huge investment. This acts as a deterring factor for a firm wanting to enter this market.
- ii. Firms in the oligopolistic market use a complex technology in production. New firms find it hard to acquire such technology.
- iii. Firms in this market, form cartels. These cartels prevent entry of new firms in the market.
- iv. The firms in these market form have exclusive patent rights. This also prevents new firms from entering the market.

29. Given, $E_d = (-) 1$

In this case, when Elasticity of Demand is $(-) 1$,

Total Expenditure will remain constant Given,

Total Expenditure = Rs 50

\therefore TE does not change

\therefore When quantity is 25 units

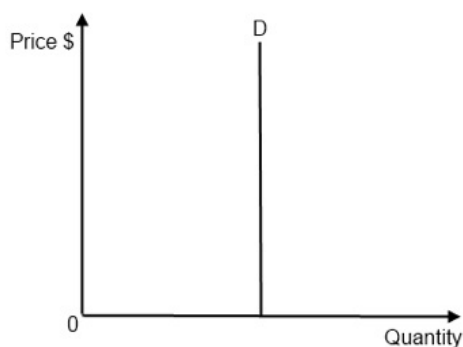
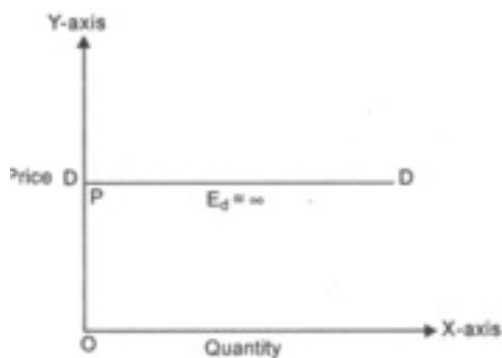
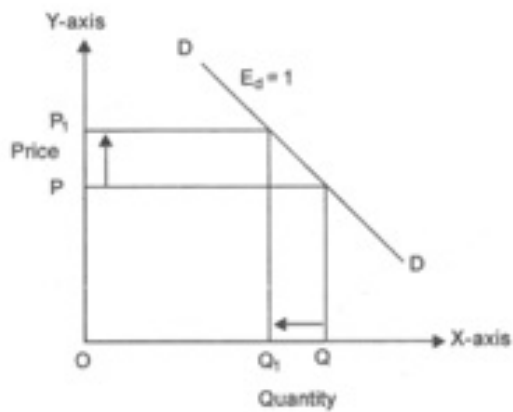
Price = $50 \div 25 = \text{Rs } 2$ per unit.

30. **Total and Marginal Cost and Revenue Schedule**

Output (units)	Price (Rs)	Total Cost (TC in Rs)	Marginal Revenue (MR in Rs) ($P = MR$)	Marginal Cost (MC in Rs) ($TC_n - TC_{n-1}$)
1	10	13	10	13
2	10	22	10	9
3	10	30	10	8
4	10	38	10	8

5	10	47	10	9
6	10	57	10	10
7	10	71	10	14

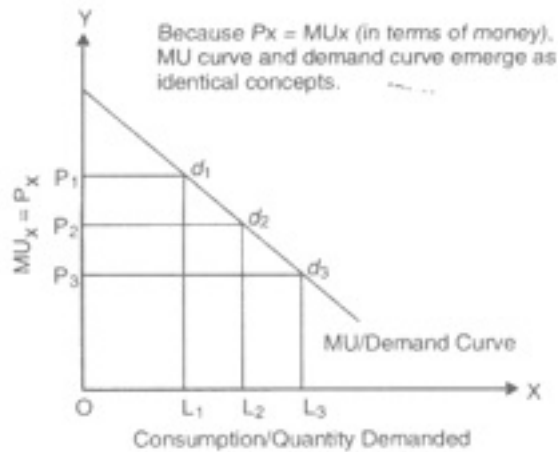
Producer is at equilibrium at 6th unit only where marginal Revenue= Marginal Cost(10), and Marginal Cost is rising afterwards. If producer produces 7th unit where Marginal cost is 14 and Marginal Revenue is 10. In such a situation producer will get the loss.



This figure represent $E_d = 0$

OR

As per single commodity equilibrium condition, consumer purchases that much quantity of good at which $P_x = MU_x$ (in term of money).



Accordingly, $P_x = MU_x$ can be taken as identical to each other corresponding to a particular quantity of commodity-X purchased by the consumer. Law of Diminishing marginal utility states that MU_x tends to decline as more and more of X is consumed. Because $P_x = MU_x$ are identical, P_x must also be declining as more and more of X is consumed or purchased. Thus, we have two inverse relationships indicated by the same line (as in Fig.) :

- i. inverse relationship between MU_x and Q_x , which produces MU curve and indicates the Law of Diminishing Marginal Utility, and
- ii. inverse relationship between P_x and Q_x which produces demand curve indicating the Law of Demand. Since, both these relationships are indicated by the same line, we can say that MU curve is identical with demand curve, or the Law of Diminishing Marginal Utility is identical with the Law of Demand. Thus, Fig. shows that MU_x (on vertical axis) reduces as Q_x increases. It also shows that as P_x reduces, Q_x increases.

32. Given,

Total Expenditure (TE) = Rs 400

Price (P) = Rs 8 per unit

Quantity (Q) = $400 \div 8 = 50$ units

Now, it is given that Price rises by 25% i.e.

$$\text{New price } (P_1) = P + 25\% \text{ of } P = 8 + \left(\frac{1}{4} \times 8\right)$$

$$= 8 + 2 = \text{Rs } 10 \text{ per unit}$$

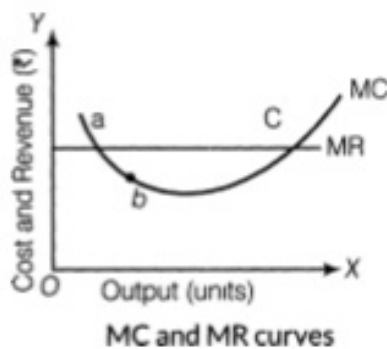
$$\text{Total expenditure when price changes } (TE_1) = \text{Rs } 500$$

$$\text{Quantity demanded } (Q_1) = 500 - 10 = 50 \text{ units}$$

$$\text{When price rises } (E_d) = (-) \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$= (-) \frac{0}{2} \times \frac{8}{50} = 0 \text{ (perfectly inelastic)}$$

33. i. No, because when Marginal Revenue is greater than Marginal Cost, then this implies that the producer is getting increasing returns to a factor. If he increases his production level, his cost will further decrease and this will help him to earn more profits.



In the above figure, at point 'b', $MR > MC$. So, the producer is earning super-normal profits. This will induce him to increase his production further,

- ii. There can be two possible situations
- $MR = MC$ and Marginal Cost is falling beyond the point of equilibrium. This condition is depicted at point 'a' in the graph. The producer is not in equilibrium at this point because beyond this point Marginal Cost is falling. So, by producing additional units the producer will be able to earn abnormal profits.
 - Marginal Revenue = Marginal Cost and Marginal Cost is rising beyond this point. This condition is depicted at point 'c' in the above graph.

34. Market equilibrium refers to the situation in which demand and supply for a given commodity are equal to each other. However, if there is a decrease in the demand for a commodity it will have an effect on equilibrium price and quantity. Effect of decrease in demand of a commodity on an equilibrium price and quantity is

discussed below, with the help of the diagram.

In the figure, DD and SS are an initial demand curve and supply curve respectively. E is initial equilibrium point, where OQ is an equilibrium quantity and OP is an equilibrium price. Decrease in demand implies a shift in demand curve to the left. It is indicated by D_1D_1 . This sets the following chain of effects:

Decrease in demand implies that less is demanded at the existing price causing excess supply. Price of the commodity will tend to decrease from OP to OP_1 due to which there will be expansion in demand and contraction in supply. This will bring to an equilibrium price again.

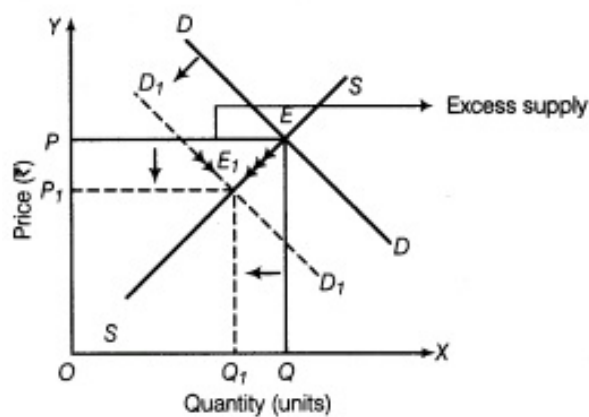


Diagram showing leftward shift in the demand curve

OR

Market Equilibrium is determined when the quantity demanded of a commodity becomes equal to the quantity supplied. Let us understand the determination of market equilibrium through a table.

Market Equilibrium under Perfect Competition

Price Rs.	Market Demand (units)	Market Supply (units)	Shortage (-) or Surplus	Remarks
2	100	20	(-) 80	Excess Demand
4	80	40	(-) 40	
6	60	60	0	Equilibrium Level

8	40	80	(+) 40	Excess Supply
10	20	100	(+) 80	

Excess Demand:

- i. At ₹ 2, $D_x > S_x$
- ii. So there is excess demand in the market.
- iii. The excess demand would push the price upward and supply expand.
- iv. The expansion of supply and contraction of demand continues till $D_x = S_x$.

Excess supply:

- i. At ₹ 10, $D_x < S_x$
- ii. So, there is excess supply in the market.
- iii. The pressure of excess supply would push the price downward. And demand expand.
- iv. The expansion of demand and contraction of supply continues till $D_x = S_x$.