

Class XI Session 2025-26

Subject - Economics

Sample Question Paper - 10

Time Allowed: 3 hours

Maximum Marks: 80

General Instructions:

1. This question paper contains two sections:
Section A – Micro Economics
Section B – Statistics
2. This paper contains 20 Multiple Choice Questions type questions of 1 mark each.
3. This paper contains 4 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.
4. This paper contains 6 Short Answer Questions type questions of 4 marks each to be answered in 80 to 100 words.
5. This paper contains 4 Long Answer Questions type questions of 6 marks each to be answered in 100 to 150 words.

Section A

1. Fill in the blanks: [1]
Statistics studies _____ information. (qualitative/quantitative)
2. Which of the following statement is false? [1]
a) Fisher's Index is called Ideal index
b) Laspeyer's Index makes use of base year quantities as weight.
c) The base year quantities are used as weights in Paasche's method.
d) The base period should be a normal period
3. Correlation coefficient is dependent on the: [1]
i. choice of origin and
ii. the scale of observations.
a) (i) is false and (ii) is true
b) Both are false
c) (i) is true and (ii) is false
d) Both are true
4. **Assertion (A):** Sampling is cheaper and possible to conduct more investigations within the same budget of an organization or a country. [1]
Reason (R): Fewer efforts are involved in it which is more economic method than the census.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true.

5. Find the median [1]

Value	20	29	30	39	44



Frequency	2	4	4	3	2
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OR

Which average would be suitable in the following cases?

- Average production in factory per shift.
- Average wages in an industrial concern.
- In case of open ended frequency distribution.
- Average size of readymade garments.
- Average intelligence of students in a class.

13. Prepare a frequency distribution by inclusive method taking class interval of 7 from the following data [4]

28, 17, 15, 22, 29, 21, 23, 27, 18, 12, 7, 2, 9, 4, 1, 8, 3, 10, 5, 20, 16, 12, 8, 4, 33, 27, 21, 15, 3, 36, 27, 18, 9, 2, 4, 6, 32, 31, 29, 18, 14, 13, 15, 11, 9, 7, 1, 5, 37, 32, 28, 26, 24, 20, 19, 25, 19, 20, 6, 9

14. What are the general rules to construct a Time Series graph? [4]

OR

Net domestic product by industry of origin (at 2004-05 prices) is given for the year: 2013-14 and 2014-15. Present this data in terms on percentage bar diagram.

Net Domestic Product by Industry of Origin (at 2004-05 prices) in 2013-14 and 2014-15 (Rs. in crore)

Sector	Year (2013-14)	Year (2014-15)
Primary	6,65,751	6,71,674
Secondary	8,23,220	8,46,805
Tertiary	21,58,070	21,70,512
Total	36,47,041	36,88,991

15. How is indirect oral investigation different from direct oral investigation? [4]

16. i. Write any three uses of index number especially in economics. [6]

ii. Calculate the weighted average of price relative index for 2016 on the basis of 2012 from the following data.

Commodity	W	P ₀	P ₁
		2012	2016
A	10	15	20
B	8	10	12
C	6	5	8
D	6	10	13
E	4	4	5

17. Calculate the upper and lower quartiles for the following frequency distribution. [6]

Class Interval	Frequency (f)
13-25	6
25-37	11
37-49	23
49-61	7



61-73	3
Total	50

OR

Taking some hypothetical data, show that sum of deviations taken from mean is zero.

Section B

18. Fill in the blanks: [1]
The supply curve of coffee shifted to the leftward when price of the substitute good (tea) _____.
19. Positive economic analyses [1]
a) The problem of What to produce b) Distribution of national product
c) Central problems of an economy d) Cause and effect relationship
20. Suppose that in the market for **cheese** (a normal good), the following occur simultaneously: [1]
i. consumer incomes increase and
ii. the price of milk (an input to the production of cheese) increases.
Based on the above information Which of the following statements is TRUE?
A. The equilibrium price of cheese could either increase or decrease, but equilibrium quantity will definitely decrease.
B. The equilibrium quantity of cheese could either increase or decrease, but the equilibrium price will definitely decrease.
C. The equilibrium price of cheese could either increase or decrease, but equilibrium quantity will definitely increase.
D. The equilibrium quantity of cheese could either increase or decrease, but the equilibrium price will definitely increase.
a) Only C b) Only D
c) Only B d) Only A
21. Marginal Revenue is [1]
a) Addition to the total revenue on the sale of an additional unit of Output b) Same as total revenue
c) Addition to the total revenue on the production of an additional unit of Output d) Additional cost involved in production
22. **Assertion (A):** Average Cost will rise only when Marginal Cost rises. [1]
Reason (R): Rise in AC takes place when MC is greater than AC and not necessarily when MC rises.
a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false. d) A is false but R is true.
23. Fill in the blanks: [1]
The law of demand does not apply to _____ goods. (normal/Giffen)
24. Which of the following is not a characteristic feature of imperfect competition? [1]
a) Prices vary from seller to seller b) All the products are homogeneous



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Solution

Section A

1. 1. Quantitative

2.

(c) The base year quantities are used as weights in Paasche's method.

Explanation:

The current year quantities are used as weights in Paasche's method.

3.

(b) Both are false

Explanation:

Coefficient of correlation is independent of the change of scale and origin. Any constant added or subtracted (change of origin) does not affect the value of the correlation coefficient. Similarly, any constant multiplied or divided (change of scale) will also not affect the coefficient of correlation.

4.

(b) Both A and R are true but R is not the correct explanation of A.

Explanation:

Sampling is cheaper and possible to conduct more investigations within the same budget of an organization or a country. Fewer efforts are involved in it which is a more economic method than the census.

5. **(a)** 30

Explanation:

In case of discrete series the position of median i.e. $\frac{(N+1)}{2}$ th item can be located through cumulative frequency. The corresponding value at this position is the value of median.

Value	20	29	30	39	44
Frequency	2	4	4	3	2
Cumulative frequency	2	6	10	13	15

$M = 15 + \frac{1}{2} = 8\text{th place}$ which is located in 30

6.

(d) weighted aggregate price index

Explanation:

Since, all items in data do not have equal importance to consumers, we give different weightages to different items to reflect their relative importance in the group. If i buy 1 kg of wheat per week and 7 kgs of rice per week. It implies that to me, weightage lies in rice more than wheat.

7.

(d) She is misusing the statistics

Explanation:

She has not used any statistical tool to make her claim valid. She cannot generalise her claim without using data. So, she is misusing statistics.

8. **(a)** 3000

Explanation:

Fishing licences sold in Clinton country = $1000 + 1000 + 1000 + 1000 + 1000 + 1000 = 6000$.

Fishing licences sold in Hamilton country = $1000 + 1000 + 1000 = 3000$.



9.

Explanation:

10.

Explanation:

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{6(16) - (0)(4)}{\sqrt{6(4) - (0)^2} \sqrt{6(68) - (4)^2}} = 0.99$$

- If the dots move from left to the right upwards, correlation is said to be positive.

$$\begin{aligned}\text{Then } \bar{X}_{1,2} &= \frac{n_1 \bar{X}_1 + n_2 \bar{X}_2}{n_1 + n_2} \\ \Rightarrow \bar{X}_{1,2} &= \frac{8 \times 100 + 12 \times 90}{8 + 12} \\ &= \frac{800 + 1080}{20} \\ &= \frac{1880}{20} = 94\end{aligned}$$

OR

The frequency distribution by the inclusive method of given data is shown below:

Class Interval	Tally Bar	Frequency (f)
1-7		15
8-14		12
15-21		15
22-28		10
29-35		6
36-42		2
Total		60

14. General rules to construct a time Series graph

- Since time can never be in negative values, II and III quadrant are not used in making of time series graphs.
- Time period (week, Month, Year) is taken on X- Axis. And Variable under study is taken on Y-Axis.
- We start Y axis with Zero and decide the scales for both the axis.
- Different values are plotted on the graph.
- By joining these points, we get a time series graph.

Time series graph can be of three types:

- One Variable Graph.
- Two or more than two variable Graph.
- When False Base Line is used.
- Graphs of Different Units.

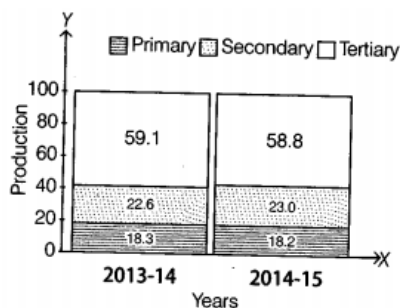
OR

Percentages are computed as under Year 2013-14

Percentage share of primary sector

$$= \frac{6,65,751}{36,47,041} \times 100$$

Net Domestic Product by Industry of Origin in 2013-14 and 2014-15



15.	Basis	Direct Personal Investigation	Indirect Oral Investigation
	Originality	These data are original in their nature.	These data lack originality as data are collected from the witnesses.
	Coverage	It can cover a lim-ited area.	It can cover relatively a larger area.
	Reliability and Accuracy	It is more reliable and accurate in non-personal matters and less reliable in personal matters. For example, if we are conducting a survey on domestic violence, it is less reliable and if we are conducting survey on preference for a consumer good, it is more reliable.	It is less reliable and accurate in non-personal matters and more reliable in personal matters. For example, if we are conducting a survey on domestic violence, it is more reliable and if we are conducting survey on preference for a consumer good, it is less reliable.
	Uniformity	There is greater uniformity in this method.	Uniformity is lacking in this in this method.

16. (i) Uses of index number are

- Index numbers are helpful in measuring the purchasing power i.e., value of the money: The value of money depends on its purchasing power and purchasing power of money depends on the price of commodities. The change in price adversely affects the value of money.
- These numbers are used to measure level of economic activities like import, export, production, population, etc.



- iii. These numbers are helpful in evaluating economic policy e.g., index number helps in knowing the effect of export policy on export.
- iv. Index numbers act as economic barometers. They measure the pulse of an economy and act as a barometer to indicate fluctuations in general economic conditions of a country.
- (ii)

Construction of Weighted Index Number

Here, we consider price relative as variable and multiply each value of the variable with the corresponding weight and dividing the sum by the sum of weights.

Commodity	W	Price in (Rs.) (p_0) 2012	Price in (Rs.) (p_1) 2016	$I \left(\frac{p_1}{p_0} \times 100 \right)$	IW
A	10	15	20	133.33	1333
B	8	10	12	120.00	960
C	6	5	8	160.00	960
D	6	10	13	130.00	780
E	4	4	5	125.00	500
	$\Sigma W = 34$				$\Sigma IW = 4533$

$$P_{01} = \frac{\Sigma IW}{\Sigma W}$$

$$= \frac{4533}{34} = 133.3 \text{ Thus, prices have increased by 33.3 percent.}$$

17.

Class Interval	Frequency (f)	Cumulative Frequency (cf)
13-25	6	6
25-37	11	17
37-49	23	40
49-61	7	47
61-73	3	50
	$n = \Sigma f = 50$	

Calculation of Upper and Lower Quartiles

Lower Quartile	Upper Quartile
Lower Quartile number (q_1) = Size of $\left(\frac{n}{4}\right)$ th item	Upper Quartile number (q_3) = Size of $3\left(\frac{n}{4}\right)$ th item
$= \left(\frac{50}{4}\right)$ th item = 12.5th item cf just greater than 12.5 is 17 and the corresponding class is 25-37. So, $l_1=25$ cf =6, f=11 and c=12 $\therefore Q_1 = l_1 + \frac{\frac{n}{4}-cf}{f} \times c$ $= 25 + \frac{12.5-6}{11} \times 12 = 25 + \frac{6.5}{11} \times 12 = 25 + 7.09$ $\Rightarrow Q_1=32.09$	$= \text{Size of } 3\left(\frac{50}{4}\right)$ th item = 37.5th item cf just greater than 37.5 is 40 and corresponding class is 37-49. So, $l_1=37$, cf=17 f=23 c=12 $\therefore Q_3 = l_1 + \frac{\frac{3n}{4}-cf}{f} \times c$ $= 37 + \frac{37.5-17}{23} \times 12 = 37 + \frac{20.5}{23} \times 12$ $= 37 + 10.70 \Rightarrow Q_3=47.70$

OR

The sum of deviations of the observations from the arithmetic mean is always zero. We can show this with the help of this table

x	$x - \bar{x}$
	$\bar{x} = \frac{32}{4} = 8$
3	-5
5	-3
10	2



14	6
$\sum x = 32$	$\sum x - \bar{x} = 0$

Section B

18. 1. Increases

19.

(d) Cause and effect relationship

Explanation:

Positive economics is objective and fact based, statements do not have to be correct, but they must be able to be tested and proved or disproved.

20.

(b) Only D

Explanation:

The equilibrium quantity of cheese could either increase or decrease, but the equilibrium price will definitely increase. Due to the increase in input price, the equilibrium price of cheese will definitely increase.

21. **(a)** Addition to the total revenue on the sale of an additional unit of Output

Explanation:

$$MR_n = TR_n - TR_{n-1}$$

22.

(d) A is false but R is true.

Explanation:

A is false but R is true.

23. 1. Giffen

24.

(b) All the products are homogeneous

Explanation:

The products are not homogeneous in imperfect competition. There is differentiation between the products. Homogeneous products is a feature of perfect competition.

25.

(c) No effect on both

Explanation:

When price remains constant, a firm can sell more quantity of output at the same price. It means that the revenue from every additional unit i.e. MR is equal to AR. Both MR and AR curve coincide and are parallel to the X axis.

26. 1. average cost

27. **(a)** True

Explanation:

True

28. Opportunity cost:

Opportunity cost is the cost of next best alternative foregone in choosing a given alternative.

Example:

Suppose an economy produces only two goods X and Y. Further, suppose that by employing these resources fully and efficiently, the economy produces $1X + 10Y$. If the economy decides to produce $2X$, it has to cut down production of Y by 2 units. Then $2Y$ is the Opportunity Cost of producing $1X$.

OR

PPC is a graph that shows the maximum number of possible units a company can produce if it only produces two products using all of its resources efficiently.



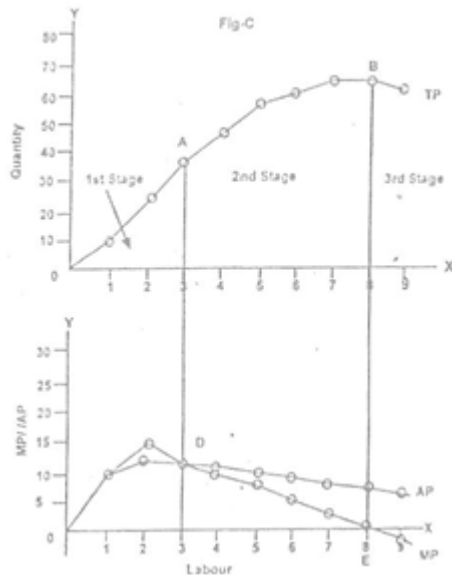
- i. Widespread floods in the river will lead to the destruction of resources.
- ii. If there is the destruction of resources the PPC will shift to the left.

29. The firm is called price taker when it has to accept the price that is determined by the market forces of demand and supply and cannot decide its own price. In case of perfect competition a firm is a price taker because in such a market, a firm cannot influence the price by changing its output instead a firm has to accept the price prevailing in the market.

30. The law of variable proportion shows that as we increase the quantity of only one input, keeping other inputs fixed, the total product increases at an increasing rate in the beginning, then increases at a diminishing rate and after a level of output ultimately falls. The behavior of Total product according to this law is as under:

The same is explained with the diagram given below.

- i. TP increases continuously from points O to A. This is Phase I - TP increases at an increasing rate.
- ii. It increases at a diminishing rate (concave shape) from A to B. - Phase II - TP increases at a diminishing rate.
- iii. TP is maximum at B.
- iv. After point B, Total Product falls. - Phase 3 - TP starts falling.



31. Constant price means **AR is constant**. If AR is constant, $AR = MR$. Both AR and MR are, therefore, indicated by a horizontal straight line, parallel to X-axis. When the law of variable proportions is operative, the MC curve tends to be U-shaped. MC tends to decline corresponding to increasing returns, and it tends to rise corresponding to diminishing returns.

As a producer, I will strike my equilibrium at a point when:

- (i) $MR = MC$, and (ii) MC is rising.

I may face two situations:

- (i) $MR > MC$, and (ii) $MR < MC$.

For me, MR is constant in both situations so I will have to adjust my output. So the equality between MR and MC will be achieved only through changes in MC.

In situation 1, when **$MR > MC$** :

I would like to increase the level of output. This would cause an increase in MC. The process of increasing output is to be continued till $MR = MC$.

In situation 2, when **$MR < MC$** :

I would like to decrease the level of output. This would cause a decrease in MC. The process of decreasing output is to be continued till $MR = MC$.

OR

Producer's Equilibrium: Equilibrium represents a state of no change. A firm is said to be in equilibrium when it does not incline to expand or to contract its output. Producer's Equilibrium refers to the state where a producer is earning the maximum possible profit by producing a particular level of output. A producer would be in the state of equilibrium if he is earning a maximum profit, i.e. has profit maximisation. It is referred to as 'equilibrium' because a producer has no incentive to move away from this point, as such deviation will reduce his/her profit.

If a firm may suffer losses, and yet continue to stay in the market, it does not suspend its production activity. This happens in a short period. Because in the short period, a firm is confronted with 2 sets of costs – (i) fixed cost, and (ii) variable cost. Fixed cost is incurred even when output is zero. A firm has to bear the loss of fixed costs even when production is stopped. Accordingly, a

firm may decide to continue production so long as variable costs are covered. Thus, production may continue as long as $TR \geq TVC$.

In this case, the producer will reach its **equilibrium** at the point where the price is equal to or greater than the minimum of the short-run average variable cost curve (SAVC). This is because if a producer is incurring losses then he must be selling his product at a price lower than the minimum of SAVC. Thus, in order to reach equilibrium, he will have to sell the output at a price that is equal to or greater than the minimum of SAVC.

In case of the long run, when all costs are variable costs, a firm will undertake production only when all costs are covered. Otherwise, it will quit the industry.

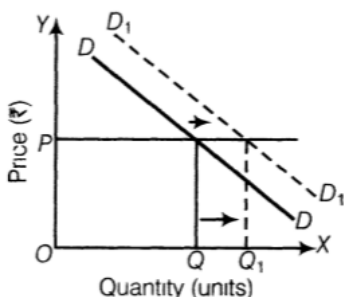
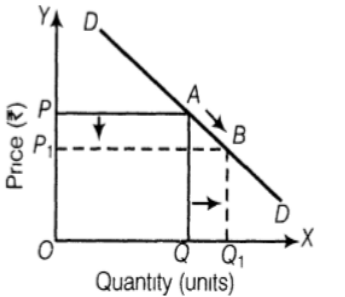
$$32. E_d = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in Price}}$$

$$\text{Percentage change in quantity demanded } (\% \Delta Q) = \frac{10}{40} \times 100 = 25\% \text{ (fall)}$$

$$E_d = \frac{25\%}{10\%}$$

$$E_d = 2.5$$

Demand is more elastic as $E_d > 1$

Sr. No.	Points of Difference	Increase in demand	Increase in quantity demanded
1.	Reason	This is caused by a change in determinants, other than own price of the commodity.	This is caused only by a change in its own price of the commodity
2.	Impact	This happens when at the same price, more is being demanded.	This happens when at a lower price, more is being demanded.
3.	Diagrammatic presentation	<p>Diagrammatically, this is shown as a rightward shift in the demand curve.</p>  <p>Shift in Demand Curve</p>	<p>Diagrammatically, this is shown as a rightward movement on the same demand curve.</p>  <p>Movement Along a Demand Curve</p>

34. Answer the following questions

(i) There will not be any change in the budget set. Explanation by Example Let.

Price of good 1 (X) = Rs 2

price of good 2 (Y) = Rs 4

Income of consumer = Rs 50

Equation of Budget line will be $2X + 4Y = 50$

if the prices as well as the income doubles, then new equation of budget line will be

$$4X + 8Y = 100$$

$$2(2X + 4Y) = 2(50)$$

$$2X + 4Y = 50$$

Therefore, there will be no change in the budget set.

(ii) i. Given:

Price of good (P_x) and good (P_y) = ₹ 10

Income of consumer = ₹ 40

The following combinations are available to the consumer-

First option – (0, 0), (0, 1), (0, 2), (0, 3), (0, 4)

Second option – (1, 0), (1, 1), (1, 2), (1, 3)

Third option – (2, 0), (2, 1), (2, 2)

Fourth option – (3, 0), (3,1)

Fifth option – (4, 0)

ii. The exactly cost of ₹ 40, the bundles are (0, 4), (1, 3), (2, 2), (3, 1) and (4, 0).

