CBSE CLASS 11 ECONOMICS SAMPLE PAPER SET-2 (ANSWERS)

SET - 2

Economics

Time allowed: 3 hours **Maximum Marks: 80**

General Instructions:

1. This question paper contains two parts:
   Part A - Statistics (40 marks)
   Part B - Micro Economic (40 marks)
2. Marks for questions are indicated against each question.
3. Question No. 1-7 and Question No. 16 – 22 are 1 mark questions and are to be answered in one word/sentence.
4. Question No. 8-10 and Question No. 23 – 25 are 3 marks questions and are to be answered in 60 - 80 words each.
5. Question No. 11-13 and Question No. 26 – 28 are 4 marks questions and are to be answered in 80-100 words each.
7. Question No. 14-15 and Question No. 29 – 30 are 6 marks questions and are to be answered in 100-150 words each.

Solution

Q	**PART - A (STATISTICS)**	Marks
1	400 Or Standard deviation	1
2	Economic	1
3	Less than; more than	1
4	Consumer Price Index	1

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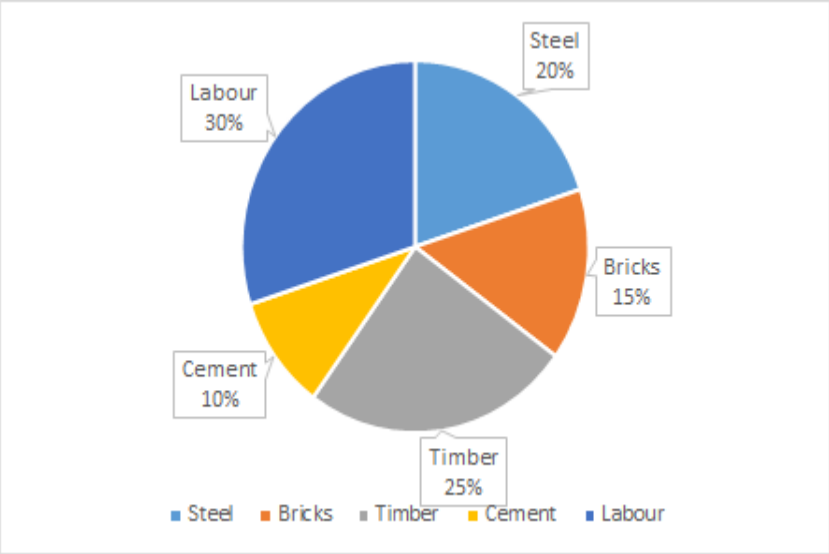
<table>
<tr><td>5</td><td>(a)
$$q_{01} = \frac{\sum q_1}{\sum q_0} x\ 100$$</td><td>1</td></tr>
<tr><td>6</td><td>True</td><td>1</td></tr>
<tr><td>7</td><td>Census</td><td>1</td></tr>
<tr><td>8</td><td>
<table>
<tr><th>Basic</th><th>Primary data</th><th>Secondary data</th></tr>
<tr><td>(a) Originality</td><td>primary data is being called original data, because is collected directly by the investigator from the source of origin.</td><td>Secondary data is not original data, because the investigator uses data collected by some other person or agency.</td></tr>
<tr><td>(b) Time</td><td>More time is required to collect primary data.</td><td>Less time is required to collect secondary data.</td></tr>
<tr><td>(c) Cost</td><td>More cost and effort is involved in the collection of primary data.</td><td>It is cheaper because data is collected from the published or unpublished sources.</td></tr>
<tr><td>(d) Suitability</td><td>Primary data is more reliable and suitable.</td><td>Secondary data does not suit the purpose of investigation.</td></tr>
</table>
</td><td>3</td></tr>
<tr><td>9</td><td>Meaning of Arithmetic Mean: It is defined as the sum of the values of all observations divided by the number of observations. It is also known as ‘Mean’ or ‘Average’ by the common man. It is usually denoted by $\overline{X}$.

Formula of Assumed Mean Method:
$$\overline{X} = A + \frac{\sum fd}{N}$$
Here, A = Assumed mean
N = Number of observations
f = Frequency
d = X - A , i.e. deviations of variables taken from assumed mean
$\sum fd$ = Sum of the product of frequencies and their respective deviations.
OR</td><td>3</td></tr>
</table>

	<table><tr><td>Workers</td><td>Daily workers (₹)</td></tr><tr><td>A</td><td>110</td></tr><tr><td>B</td><td>130</td></tr><tr><td>C</td><td>180</td></tr><tr><td>D</td><td>200</td></tr><tr><td>E</td><td>120</td></tr><tr><td>F</td><td>160</td></tr><tr><td>N = 6</td><td>$\sum X = 900$</td></tr></table> $\bar{x} = \frac{\sum X}{N} = \frac{900}{6} = 180$	
10	<table><tr><td>Items</td><td>Degree of component parts</td><td>Degree</td></tr><tr><td>Steel</td><td>20 x 3.6</td><td>72°</td></tr><tr><td>Bricks</td><td>15 x 3.6</td><td>54°</td></tr><tr><td>Timber</td><td>25 x 3.6</td><td>90°</td></tr><tr><td>Cement</td><td>10 x 3.6</td><td>36°</td></tr><tr><td>Labour</td><td>30 x 3.6</td><td>108°</td></tr></table>	3



11 Converting the above data into discrete series, we get — 4

Marks	Tally Bars	Frequency
8	II	2
10	II	2
12	II	2
Mode 14	IIII	Modal frequency 4
16	II	2
18	II	2
20	I	1
	Total	15

Mode = 7 marks,
In discrete series, the mode can be located in two ways:
(i) By Inspection
(ii) By Grouping

12 Solution: — 4

$$\bar{x} = \frac{\sum X}{N}$$

$$\sum X = N\bar{X}$$

	$\bar{X} = 280,\ N = 40$ $\sum X = 40 \times 280$ $= 11,200$ *Calculate* $\sum X$, *i.e.*, 11,200 *which is wrong as the student misread the item* 130 *as* 180. *Let us get correct* $\sum X$ *by substracting the incorrect item and adding the correct item to* $\sum X$. Incorrect $\sum X$ = 11,200 Less: Incorrect item 180 11,020 Add: Correct item 130 Correct $\sum X$ 11,150 Hence, corrected arithmetic mean is $\frac{11,150}{40} = 278.75$	
13	The values given in the series will be arranged in an ascending order in the following way: 10 12 12 15 15 18 20 22 24 25 28 30 33 35 36 40 48 50 $Median = size\ of\ the \left(\frac{N+1}{2}\right)^{th} item = Size\ of\ the \left(\frac{18+1}{2}\right)^{th} = 9.5th\ item$ $The\ value\ of\ 9.5^{th}\ item = \frac{Value\ of\ the\ 9^{th}\ item + Value\ of\ the\ 10^{th}\ item}{2}$ $= \frac{24+25}{2}$ $= 24.5$ $Hence, \quad Median = 24.5$	4

14

Calculation of standard deviation

Marks	No. of students (f)	Mid-points (m)	fm	m^2	fm^2
0 - 4	8	2	16	4	32
4 - 8	16	6	96	36	576
8 - 12	4	10	40	100	400
12 - 16	2	14	28	196	392
	N = 30		$\sum fm = 180$		$\sum fm^2 = 1,400$

$$\sigma = \sqrt{\frac{\sum_{fm^2}}{N} - \left(\frac{\sum_{fm}}{N}\right)^2}$$

$$= \sqrt{\frac{\sum_{fm^2}}{N} - (\bar{X})^2}$$

$$We\ get,\ N = 30,\ \sum_{fm} = 180,\ \sum_{fm^2} = 1,400$$

Substituting the values

$$= \sqrt{\frac{1,400}{30} - \left(\frac{180}{30}\right)^2}$$

6

15 | Construction of Price index numbers | 6

Commo -dities	Base Year 2017		Current Year 2018		p_0q_0	p_0q_1	p_1q_0	p_1q_1
	Price	Quantity	Price	Quantity				
	p_0	q_0	p_1	q_1				
A	30	50	34	90	1,500	1,020	1,700	3,060
B	26	20	30	40	520	780	600	1,200
C	22	30	22	50	660	484	660	1,100
D	18	10	22	30	180	396	220	660
					$\sum p_0q_0$ = 2,860	$\sum p_0q_1$ = 2,680	$\sum p_1q_0$ = 3,180	$\sum p_1q_1$ = 6,020

(a) Laspeyre's price index number:

$$p_{01} = \frac{\sum p_1q_0}{\sum p_0q_0} \times 100$$

$$= \frac{3,180}{2,860} \times 100 = 111.19$$

(b) Fisher's price index number:

$$p_0 = \sqrt{\frac{\sum p_1q_0}{\sum p_0q_0} \times \frac{\sum p_1q_1}{\sum p_0q_1}}$$

$$= \sqrt{\frac{3,180}{2,860} \times \frac{6,020}{2,680}}$$

$$= \sqrt{2.498} \times 100$$

$$= 158.04$$

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	Microeconomics	
16	Economics	1
17	As there exists perfect knowledge among buyers and sellers. Moreover, due to homogeneous product and uniform price no individual firm will be able to attract customers of other firms.	1
18	Marginal Rate of substitution OR Indifference set	1
19	True	1
20	AR curve is perfectly elastic and thus parallel to the X-axis.	1
21	It means, the price of the commodity remains constant at all levels of output and the demand is perfectly elastic.	1
22	change in demand	1
23	Meaning: It is the cost of the next best alternative forgone. Or we can say that opportunity cost is the cost of the next best alternative sacrificed. Example: Suppose Rohan has three job offers (i) To work in MNC at ₹1,50,000 per month (ii) To work as Branch Manager of Private Bank at ₹1,20,000 per month (iii) To work as Branch Manager in Government Bank at ₹1,10,000 per month. In the given case, Rohan has accepted the offer for the job in MNC. Therefore, his opportunity cost for working in MNC is the cost of the next best alternative forgone, i.e., ₹1,20,000 salary of Branch Manager of Private Bank. OR Meaning: This problem refers to the choice of technique of production. This problem arises when there is availability of more than one way to produce goods and services. Types of technique: There are mainly two techniques of production. These are: (i) Labour Intensive Technique In this technique more of labour and less of Capital (machines) is used for production. (ii) Capital Intensive Technique In this technique more of capital (machines) and less of Labour is used for production.	3
24		3

Original Quantity (Q) = 600 units	Original Price = ₹10	
New Quantity (Q1) =?	New Price = ₹8	
Change in quantity (ΔQ) = ΔQ	Change in Price (ΔP) = 10 - 8 = ₹2	
Elasticity of Demand (E_d) = 5		

$$Price\ elasticity\ of\ supply\ (E_s) = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$2.5 = \frac{\Delta Q}{2} \times \frac{10}{600}$$

$$\Delta Q = 300$$

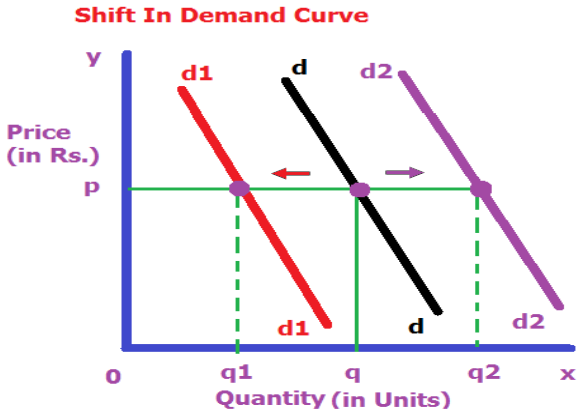
As price decreases, the quantity supplied will also decrease. It means,
New quantity = Original quantity (Q) - Change in quantity
= 600 - 300 = 300 units

25 — 3

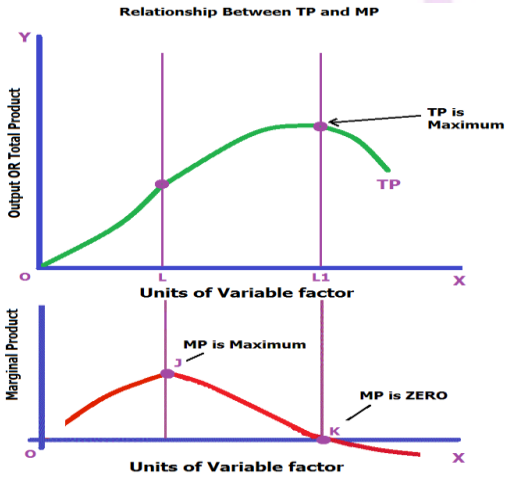
(a) Point of satiety	• 'Points of Satiety' is that stage or level of consumption where MU becomes 'Zero' and TU is maximum and constant. • It is the level beyond which MU becomes negative and TU falls Or we can say that beyond this level consumer starts getting disutility and, in some cases,, commodity may harm the consumer.
(a) Point of equilibrium	• Equilibrium is the level of consumption at which a consumer gets maximum satisfaction, given the prices of the commodities and income of a consumer. • To determine equilibrium, we match utility and price.
(c) Difference between point & satiety and equilibrium	• At the 'Point of Satiety' MU has to be 'zero'. But at 'Equilibrium' MU is not zero, it is equal to the price paid for it.
(d) In case of goods available 'free of cost'	• If a commodity is available free of cost i.e. its Price is 'Zero', then 'Level of Equilibrium' will be the same as 'Point of satiety'. • Because at this level both MU and Price are 'Zero'.

26 — 4

(a) Meaning of shift in the demand curve	When demand for the commodity changes due to change in any factor other than the own price of the commodity, it is known as 'change in demand'
(b) Rightward shift of demand curve	When demand rises at the same price, it leads to the rightward shift in the demand curve .

(c) Leftward shift of demand curve	When demand falls at the same price, it leads to the leftward shift in the demand curve.
(d) Diagram	

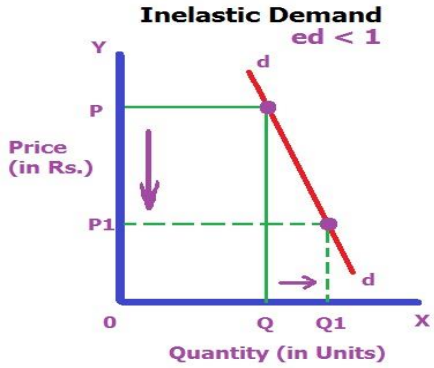
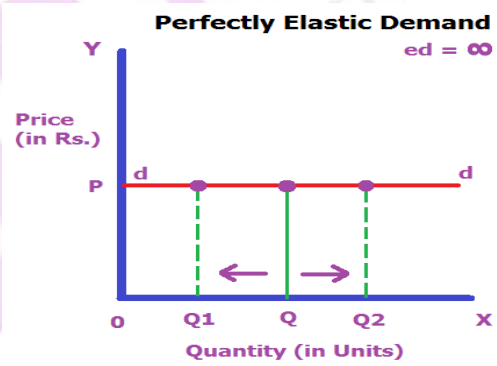
27 4

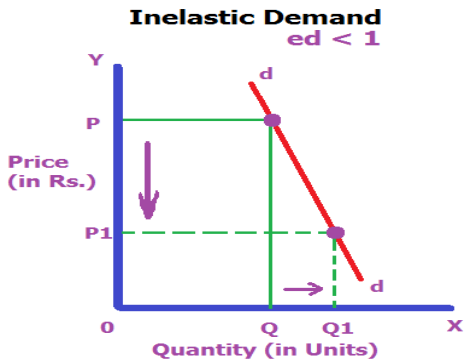


(a) When TP increases at increasing rate, MP increases
(b) When TP increases at diminishing rate, MP decreases.
(c) When TP reaches at its maximum point and becomes constant, MP becomes zero
(d) When TP starts decreasing, MP becomes negative.

OR

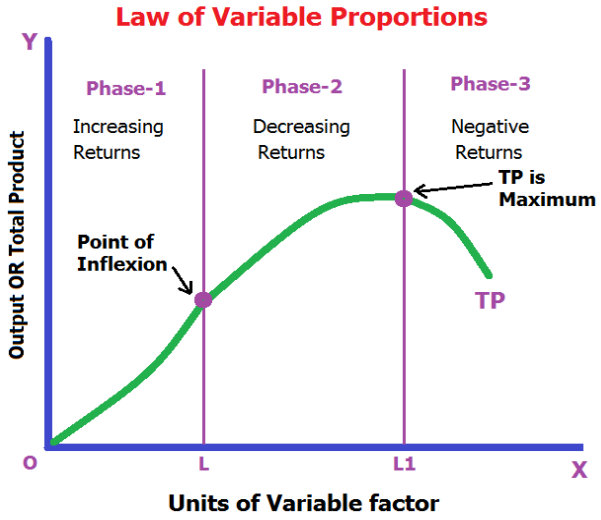
(a) The use of which can be postponed: If it is possible to postpone the consumption of a commodity then demand will be elastic.
Example: Like, if our TV has got out of order and the price of new TV has increased. We are expecting that after the budget we'll get a better model at a lower price, we can postpone our demand in present. So, its demand will be elastic.
(b) The goods whose substitutes are available: Goods whose substitutes are available like tea(coffee is the substitute of tea), demand for these goods is elastic

28	Situation: • This is the situation where the elasticity of demand is inelastic. • Demand for a commodity is said to be inelastic when the percentage change in demand is more than the percentage change in price. Diagram:  · In the given situation demand has increased from OQ to OQ_1 due to fall in price from OP to OP_1. [**Q** %Δ**Q** < %Δ**P**]	4
29	(a) Perfectly elastic demand (Ed = ∞): Demand for a commodity is said to be perfectly elastic if there is changes in demand to any extent without any change or with a very little change in price.  (b) Inelastic demand (Ed < 1): Demand for a commodity is said to be inelastic when percentage change in demand is less than percentage change in price.	6



(c) Perfectly inelastic demand (Ed =0): Demand for a commodity is said to be perfectly inelastic if demand does not change at all in response to change in price of a commodity.

30 | Meaning of law of variable proportion: Law of variable proportions is a concept of short run. This law states, as we combine more and more units of variable factor with the same fixed factors. Total Product initially increases at increasing rate, then at diminishing rate and reaches its maximum level and finally it falls. | 6



Phase -1 Phase of Increasing Returns:

Initially when we combine more units of labour with the same amount of capital, TP increases at an increasing rate.

In the above diagram this phase operates till 'OL' workers are employed.

This phase ends where TP stops increasing at an increasing rate i.e. at the point 'Q', the point of inflexion (where slope of TP changes).

Reason–Fuller utilization of fixed factors, Division of labour & specialization.

Phase -2 Phase of Diminishing Returns

When we further increase the number of workers without changing capital, TP still rises but at diminishing rate.

In the above diagram this phase operates between 'L' and 'L1' workers.

	This phase ends where TP is maximum and constant at point 'm'. Reason– Factors of production are imperfect substitutes for each other, Ideal the combination of fixed and variable factors is distorted. Phase-3 Phase of Negative Returns Beyond a certain limit if we increase number of workers (units of variable factor) we start getting negative returns i.e., TP starts declining. In the given diagram this phase operates when more than 'L1' are employed with the same fixed factors. Reason–Scarcity of fixed factors, mismanagement.	