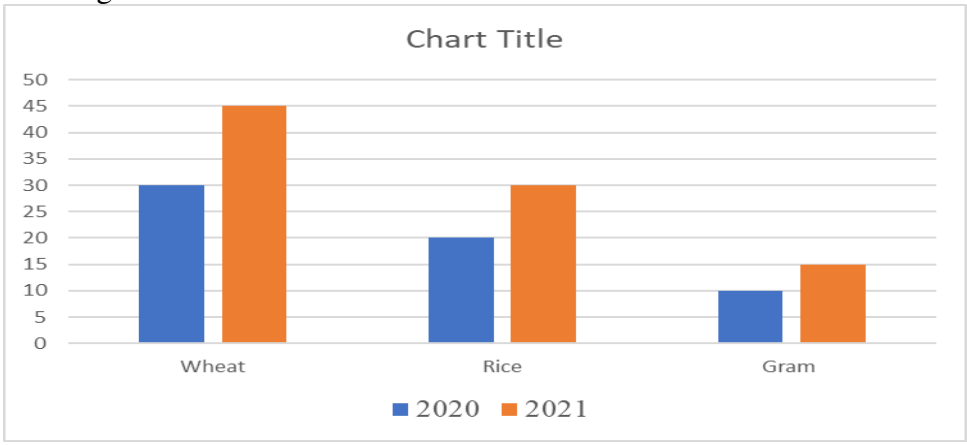


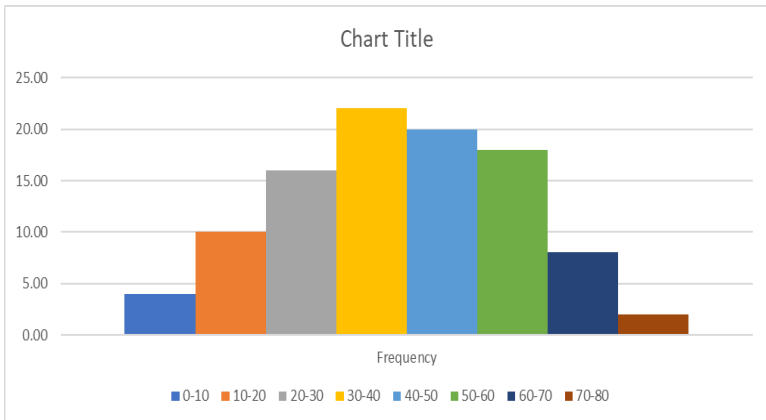
**INDIAN SCHOOL MUSCAT
FINAL EXAMINATION 2023
ECONOMICS 030**

CLASS:XI

Max. Marks:

MARKING SCHEME

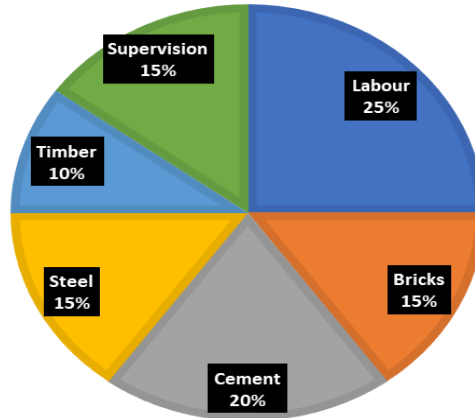
SET	QN.NO	VALUE POINTS	MARKS SPLIT UP
		STATISTICS FOR ECONOMICS	
A	1	(A)- its source of origin OR (D) – All of these	1
A	2	(C) – Average of the largest and smallest observation	1
A	3	(C) – wants	1
A	4	(C) - 360° OR (B) one dimensional diagram	1
A	5	(C)– unorganized	1
A	6	(A) Assertion and Reason is true but Reason is correct explanation for assertion	1
A	7	(D) Karl Pearson's method	1
A	8	(B) +1	1
A	9	(B)Zero	1
A	10	(A) index number	1
A	11	Bar diagram 	

		<div>OR</div> <div>HISTOGRAM</div> <div><div>Chart Title</div></div>																						
A	12	<div>Degrees of correlation.</div> <div>Degree of Correlation</div> <table><tr><th>Degree of Correlation</th><th>Positive Correlation</th><th>Negative Correlation</th></tr><tr><td>Perfect Correlation</td><td>+1</td><td>-1</td></tr><tr><td>Very High Degree of Correlation</td><td>+0.9</td><td>-0.9</td></tr><tr><td>Fairly High Degree of Correlation</td><td>Between +0.75 and +0.9</td><td>Between -0.75 and -0.9</td></tr><tr><td>Moderate Degree of Correlation</td><td>Between +0.25 and +0.75</td><td>Between -0.25 and -0.75</td></tr><tr><td>Low Degree of Correlation</td><td>Between 0 and +0.25.</td><td>Between 0 and -0.25.</td></tr><tr><td>Zero/No Correlation (uncorrelated)</td><td>0</td><td>0</td></tr></table>	Degree of Correlation	Positive Correlation	Negative Correlation	Perfect Correlation	+1	-1	Very High Degree of Correlation	+0.9	-0.9	Fairly High Degree of Correlation	Between +0.75 and +0.9	Between -0.75 and -0.9	Moderate Degree of Correlation	Between +0.25 and +0.75	Between -0.25 and -0.75	Low Degree of Correlation	Between 0 and +0.25.	Between 0 and -0.25.	Zero/No Correlation (uncorrelated)	0	0	4
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A	13	<div>13.1 (B) Secondary source</div> <div>13.2 (D) All of these</div> <div>13.3 (D) All of these</div> <div>13.4 (A) Both the statement are true</div>	<div>1</div> <div>1</div> <div>1</div> <div>1</div>																					
A	14	<table><tr><th>Wages</th><th>No. of workers</th></tr><tr><td>0-100</td><td>5</td></tr><tr><td>100-200</td><td>10</td></tr><tr><td>200-300</td><td>25</td></tr><tr><td>300-400</td><td>15</td></tr><tr><td>400-500</td><td>5</td></tr><tr><td></td><td>60</td></tr></table> <div>$Mode = l + \left(\frac{f_1 - f_0}{2f_1 - f_0 - f_2} \right) \times h$</div>	Wages	No. of workers	0-100	5	100-200	10	200-300	25	300-400	15	400-500	5		60	<div>1 mark for formula</div> <div>, 1 mark for graph, 1 mark for solution</div>							
Wages	No. of workers																							
0-100	5																							
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300-400	15																							
400-500	5																							
	60																							

		$200 + 25 - 10 / 2(25) - 10 - 15 \times 100$ $= 200 + 60 = 260$ <p><u>Mode = 260</u></p>																																									
A	15	<p>Ogive Curve: convert to exclusive</p> <table border="1"> <thead> <tr> <th>Less than Ogive</th><th></th><th>More than Ogive</th><th></th></tr> <tr> <th>Weight</th><th>F</th><th>Weight</th><th>F</th></tr> </thead> <tbody> <tr> <td>Less than 35</td><td>3</td><td>More than 0</td><td>60</td></tr> <tr> <td>Less than 40</td><td>3+5=8</td><td>More than 35</td><td>60-3=57</td></tr> <tr> <td>Less than 45</td><td>8+12=20</td><td>More than 40</td><td>57-5=52</td></tr> <tr> <td>Less than 50</td><td>20+18=38</td><td>More than 45</td><td>52-12=40</td></tr> <tr> <td>Less than 55</td><td>38+14=52</td><td>More than 50</td><td>40-18=22</td></tr> <tr> <td>Less than 60</td><td>52+6=58</td><td>More than 55</td><td>22-14=8</td></tr> <tr> <td>Less than 65</td><td>58+2=60</td><td>More than 60</td><td>8-6=2</td></tr> <tr> <td></td><td></td><td>More than 65</td><td>2-2=0</td></tr> </tbody> </table> <div> <p>Chart Title</p> <p>less than more than Column1</p> </div> <p>Pie chart</p>	Less than Ogive		More than Ogive		Weight	F	Weight	F	Less than 35	3	More than 0	60	Less than 40	3+5=8	More than 35	60-3=57	Less than 45	8+12=20	More than 40	57-5=52	Less than 50	20+18=38	More than 45	52-12=40	Less than 55	38+14=52	More than 50	40-18=22	Less than 60	52+6=58	More than 55	22-14=8	Less than 65	58+2=60	More than 60	8-6=2			More than 65	2-2=0	
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CHART TITLE

■ Labour ■ Bricks ■ Cement ■ Steel ■ Timber ■ Supervision



A

16

Marks	f	M	fm	D(x-a)	fd
0-10	5	5	25	-20	-100
10-20	10	15	150	-10	-100
20-30	25	25	625	0	0
30-40	30	35	1050	10	300
40-50	20	45	900	20	400
50-60	10	55	550	30	300
	f=100		3300		800

Direct Method:

$$X = \frac{\sum fm}{\sum f}$$

$$= \frac{3300}{100}$$

Mean = 33

Assumed Mean:

$$X = A + \frac{\sum fd}{\sum f}$$

$$= 25 + \frac{800}{100}$$

Mean = 33

OR

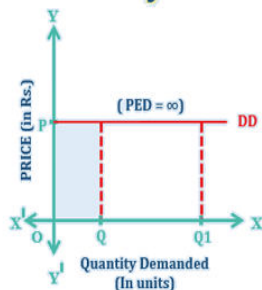
X	R1	Y	R2	D=R1-R2	D ²
55	3	12	5.5	-2.5	6.25
45	5	12	5.5	-0.5	0.25
50	4	40	1	3	9
10	10	6	8.5	1.5	2.25
25	8	20	4	4	16
25	8	4	10	-2	4
75	1	30	2	-1	1
40	6	9	7	-1	1
25	8	6	8.5	-0.5	0.25
67	2	25	3	-1	1
					$\sum D^2 = 41$

2 marks for formula, 2 marks for solution and 2 marks for final answers solution

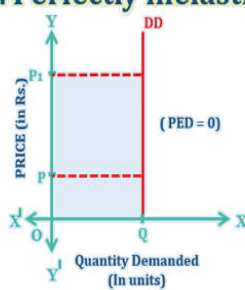
		$r_k = 1 - \frac{6 \left[\sum D^2 + \frac{(m^3_1 - m_1)}{12} + \frac{(m^3_2 - m_2)}{12} + \dots \right]}{n(n^2 - n)}$ <p>= 1- 6 (41+1/12(8-2)+1/12(64-4) / 1000-10 = 1 – 251.5 / 990 = 0.25 = <u>1- 0.25 = 0.75 (High positive correlation)</u></p>																																																					
A	17	<table border="1"><thead><tr><th>Commodity</th><th>2019 Price</th><th>2019 Qty.</th><th>2020 Price</th><th>2020 Qty.</th><th>p_1q_1</th><th>p_0q_1</th><th>p_1q_0</th><th>p_0q_0</th></tr></thead><tbody><tr><td>A</td><td>2</td><td>10</td><td>4</td><td>12</td><td>48</td><td>24</td><td>40</td><td>20</td></tr><tr><td>B</td><td>3</td><td>20</td><td>5</td><td>15</td><td>125</td><td>75</td><td>100</td><td>60</td></tr><tr><td>C</td><td>5</td><td>30</td><td>8</td><td>10</td><td>80</td><td>50</td><td>240</td><td>150</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>253</td><td>149</td><td>380</td><td>230</td></tr></tbody></table> <p>Laspeyre’s Method: $P_{01} = \frac{\sum p_1q_0}{\sum p_0q_0} \times 100$ = 380 / 230 x100 165.2</p> <p>Paasche’s method: $P_{01} = \frac{\sum p_1q_1}{\sum p_0q_1} \times 100$ = 253 / 230 x100 169.7</p>								Commodity	2019 Price	2019 Qty.	2020 Price	2020 Qty.	p_1q_1	p_0q_1	p_1q_0	p_0q_0	A	2	10	4	12	48	24	40	20	B	3	20	5	15	125	75	100	60	C	5	30	8	10	80	50	240	150						253	149	380	230	2 marks for formula 2 marks for formula calculation and 2 marks for solution
Commodity	2019 Price	2019 Qty.	2020 Price	2020 Qty.	p_1q_1	p_0q_1	p_1q_0	p_0q_0																																															
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B	3	20	5	15	125	75	100	60																																															
C	5	30	8	10	80	50	240	150																																															
					253	149	380	230																																															
		MICROECONOMICS																																																					
A	18	(D) implies that consumer’s wants will never be completely satisfied								1																																													
A	19	(B) Marginal Rate of Substitution OR (B) Indifference curve is concave to the origin								1																																													
A	20	(A) Substitutes								1																																													
A	21	(A) TP is increasing OR (C) only (i) is correct								1																																													
A	22	(A) Both Assertion (A) and (R) are true and Reason(R) is the correct explanation to Assertion(A)																																																					
A	23	(A) AP rises								1																																													
A	24	(A) constant rate								1																																													
A	25	₹3								1																																													
A	26	(A) Price ceiling								1																																													

A	27	False	1								
A	28	(A) Average Cost: It refers to the per unit fixed cost of production. It is calculated by dividing TFC by total output. (B) Marginal Cost: It refers to addition to total cost when one more unit of output is produced. $MC_n=TC_n-TC_{n-1}$ (C) Total cost: it is the total expenditure incurred by a firm on the factors of production required for the production of a commodity. $TC= TFC+TVC$	1+1+1								
A	29	A) Marginal Opportunity Cost (MOC): refers to the number of units of a commodity sacrificed to gain one additional unit of another commodity. MOC = Change units sacrificed by change units Gained. Production Possibility Curve: PPC may be defined as a curve, which represents all the possibilities of production of two given commodities with a given scarce and state of technology. OR B) Relationship between Total Utility and Marginal utility ✓ When MU is falling but remains positive, it leads to rising total utility, though at the falling rate. ✓ When MU becomes zero, it will result into constant TU ✓ Eventually when MU becomes negative, the TU will start diminishing.	1 1 1 1+1+1								
A	30	A) <table border="1"><tr><td>Original Quantity(Q) = 125 units</td><td>Original Price(P) = ₹8</td></tr><tr><td>Fall in Qunatity(▲Q) = 25 units</td><td>New Price (P1) = ₹6</td></tr><tr><td>New Quantity (Q1) = 100 units</td><td>Change in Price(▲P) = ₹2</td></tr><tr><td>Elasticity of Supply (Es) = ?</td><td></td></tr></table> <p>Percentage change in Price = Change in Price / New Price * 100</p> <p>= 2/ 8 *100 = 25%</p> <p>Percentage change in Supply = Change in Quantity / New Quantity X100</p> <p>= 25/125*100 = 20%</p> <p>$E_s = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$</p> <p>20 % / 25% = 0.8</p> <p>Es = 0.8 (Supply is less elastic as Es <1)</p>	Original Quantity(Q) = 125 units	Original Price(P) = ₹8	Fall in Qunatity(▲Q) = 25 units	New Price (P1) = ₹6	New Quantity (Q1) = 100 units	Change in Price(▲P) = ₹2	Elasticity of Supply (Es) = ?		
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Elasticity of Supply (Es) = ?											
A	31	31.1 Inverse 31.2 Substitute 31.3 Fall 31.4 Nature of a commodity	1 1 1 1								
A	32	Degrees of Elasticity of Demand:	4								

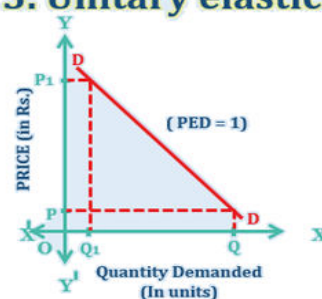
1. Perfectly elastic



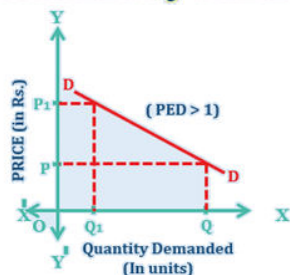
2. Perfectly inelastic



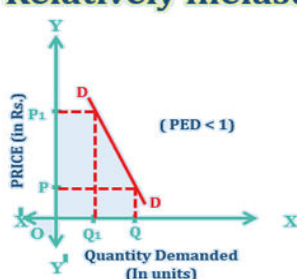
3. Unitary elastic



4. Relatively elastic



5. Relatively inelastic



A

33

Complete the following :
(A)

Output (units)	TC(₹) TFC+TVC	TFC(₹)	TVC(₹) TC-TFC
0	60	60	0
1	80	60	20
2	100	60	40
3	111	60	51
4	116	60	56
5	130	60	70
6	150	60	90

OR

Variable Factor	TP (in units) (TP = Σ MP)	AP (in units) AP = TP /VF	MP (in units) MP _n = TP _n - TP _{n-1}
0	0	0	0
1	5	5	5
2	13	6.50	8
3	17	5.67	4
4	25	6.25	8
5	30	6	5
6	30	5	0
7	26	3.71	-4

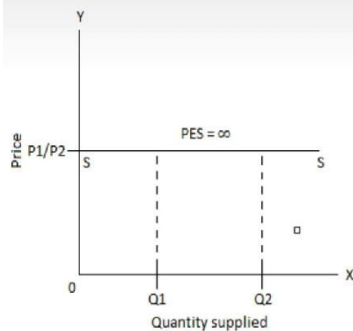
3*2

A

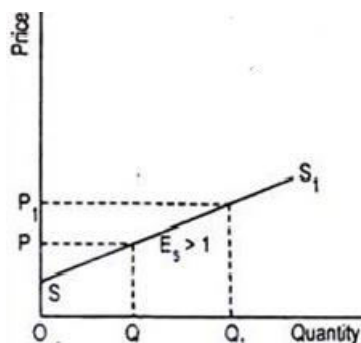
34

A. Perfectly Elastic Supply: When there is an infinite supply at a particular price and the supply becomes zero with slight fall in price, then the supply of such a commodity is said to be perfectly elastic.

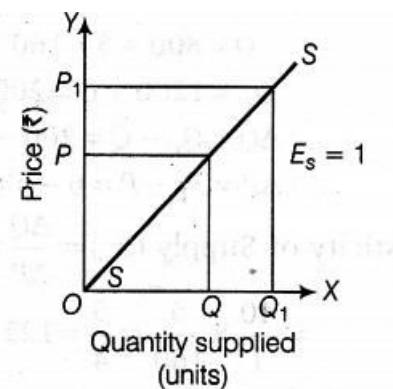
1*3 –
explanation



B. High Elasticity Supply: When percentage change in quantity supplied is more than the percentage change in price, then supply for such a commodity is said to be highly elastic supply.



C. Unitary Elastic Supply: When percentage change in quantity supplied is equal to percentage change in price, the supply for such a commodity is said to be unitary elastic.



and 1*3
for
diagram