Final Year T.D.C.(Arts) Examination, 2001
ECONOMICS
Paper - II
(Elements of Statistics)
Time : Three Hours
Maximum Marks : 100
Candidate have to attempt five questions from the following
All questions carry equal marks.

1. 'Statistics are like clay of which you can make a God or devil as you please.' Comment.
2. What are the requisites of a good table ? State the rules that serve as a guide in tabulating statistical material.
3. Find out Arithmatic Mean and Mode from the following data :

| Marks (Less than) <br> अंक (कम से कम) | No. of Students <br> विद्यार्थियों की संख्या |
| :---: | :---: |
| 80 | 50 |
| 70 | 45 |
| 60 | 40 |
| 50 | 30 |
| 40 | 16 |
| 30 | 10 |
| 20 | 7 |
| 10 | 3 |

4. Calculate Kari Pearson's Co-efficient of Skewness from the following data :

| Variable <br> $($ चर $)$ | Frequency <br> (आवृति) |
| :---: | :---: |
| $0-5$ | 2 |
| $5-10$ | 5 |
| $10-15$ | 7 |
| $15-20$ | 13 |
| $20-25$ | 21 |
| $25-30$ | 16 |
| $30-35$ | 8 |
| $35-40$ | 3 |

5. Ten students got the following percentage of marks in two subjects. Find the Co-efficient of Co-relation between the marks in the two subjects.

| Roll No <br> (रोज नं.) | X | Y |
| :---: | :---: | :---: |
| 1 | 80 | 45 |
| 2 | 60 | 71 |
| 3 | 51 | 60 |
| 4 | 69 | 57 |
| 5 | 58 | 62 |
| 6 | 62 | 68 |
| 7 | 64 | 48 |
| 8 | 72 | 50 |
| 9 | 56 | 62 |
| 10 | 58 | 60 |

6. Interpolate by Lagrange's formula the national income for the year 1962 from the following data :

| Year (वर्ष) | 1960 | 1961 | 1962 | 1963 | 1964 |
| :--- | :--- | :--- | :--- | :--- | :--- |

National Income 51126514 ? $9069 \quad 9685$
(राष्ट्रीय आय)
7. Treating 1969 as the base yer, show with the help of the following data that both 'Time Reversal Test' and 'Factor Reversal Test' are satisfied by Fischer's Ideal Index Numbers.

| Commodity <br> (वस्तु) | 1969 |  | 1972 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Price <br> (मूल्य) | Quantity <br> (तादाद) | Price <br> (मूल्य) | Quantity <br> (तादाद) |
| A | 10 | 3 | 15 | 3 |
| B | 4 | 15 | 4 | 12 |
| C | 6 | 2 | 6 | 4 |
| D | 8 | 8 | 12 | 6 |
| E | 6 | 4 | 6 | 12 |

8. An investigation into the demand for T.V. sets in 7 town has resulted in the following data :

| Population in ('000) <br> (जनसंख्या '000) | TV sets demanded <br> (टी.वो. सेट को मॉग $)$ |
| :---: | :---: |
| X | Y |
| 11 | 15 |
| 14 | 27 |
| 14 | 27 |
| 17 | 30 |
| 17 | 34 |
| 21 | 38 |
| 25 | 46 |

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9. Why is sampling necessary in statistical investigations ? Explain the important methods of sampling commonly used.
10. How are area and field statistics of agricultural crops collected in India ? What are the shortcomings of agricultural statistics ? Suggest measures to remove them.

