## HOME ASSIGNMENT

## $3^{\text {rd }}$ Semester (Honours)

Subject: Economics
Full Marks: 30

Paper: ECO-HC-3036: Statistical Methods for Economics Last Date of Submission: $1^{\text {st }}$ September, 2023

1. Why median is termed as a positional average?

1
2. Write few properties of a Good Average.

Or,
3
Write few properties of Arithmetic Mean.
3. Calculate the arithmetic mean from the following data:

5

| Marks | 20 | 30 | 40 | 50 | 60 | 70 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No of <br> Students | 8 | 12 | 20 | 10 | 6 | 4 |

4. Calculate the median for the following frequency distribution:

5

| Marks | $5-10$ | $10-15$ | $20-25$ | $15-20$ | $25-30$ | $30-35$ | $35-40$ | $40-45$ | $45-50$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No of <br> Students | 7 | 15 | 31 | 24 | 42 | 30 | 26 | 15 | 10 |

5. Calculate the mode value from the following data through grouping table and analysis table: 6

| Marks | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ | $70-80$ | $80-90$ | $90-100$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No of <br> Students | 3 | 5 | 7 | 10 | 12 | 15 | 12 | 6 | 2 | 8 |

6. From the prices of sugar and tea below, find out which is more stable in value: 5

| $\mathbf{X}$ | 55 | 54 | 52 | 53 | 56 | 58 | 52 | 50 | 51 | 49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{Y}$ | 108 | 107 | 105 | 105 | 106 | 107 | 104 | 103 | 104 | 101 |

7. Two brands of tyres are tested with the following results:
$(3+3)=6$

| Life (in ‘000 miles) | Brand of Tyres |  |
| :---: | :---: | :---: |
|  | $\mathbf{X}$ | $\mathbf{Y}$ |
| $20-25$ | 1 | 0 |
| $25-30$ | 22 | 24 |
| $30-35$ | 64 | 76 |
| $35-40$ | 10 | 0 |
| $40-45$ | 3 | 0 |

(a) Which brand of tyres has greater average life?
(b) Compare the variability and state which brand of tyres would you use on your feet of cars?

