# Answer any Five questions <br> All questions carry equal Marks 

1. Explain the difference between classification and Tabulation of data and write a brief note on format of a table and also explain the rules for entering the data into a table.
2. Explain different methods for collecting primary and secondary data.
3. Explain different types of Scales used in Research.
4. Calculate Mean, Median and Mode from the following data

| Mid Values | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 185 | 195 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Frequencies | 6 | 25 | 48 | 72 | 116 | 60 | 38 | 22 | 3 |
|  |  |  |  |  |  |  |  |  |  |

5. The following facts were gathered before and after an industrial dispute

|  | Before Dispute | After Dispute |
| :--- | :--- | :--- |
| No. of Workers | 516 | 508 |
| Mean Wages | Rs.49.50 | Rs.51.75 |
| Median Wages | Rs.52.70 | Rs.50 |
| Variance of Wages | 100 | 121 |

Compare the position before and after the dispute in respect of
a) Total Wages
b) Standard Deviation
c) Skew ness
d) Median Wages
e) Coefficient of variation
f) Modal Wages
6.a) Explain different types of Index Numbers and methods for construction of index numbers
b) Calculate four yearly moving average from the following data,

| Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Value | 50 | 36.5 | 43 | 44.5 | 38.9 | 38.1 | 32.6 | 41.7 | 41.1 | 33.8 |

7. Five types of fertilizers are applied to four varieties of potatoes, each planted on five plots of land of the same size and fertility. The yields are shown in the following data,

| Fertilizers | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Potatoes |  |  |  |  |  |
| A | 34 | 38 | 44 | 40 | 42 |
| B | 50 | 38 | 46 | 52 | 44 |
| C | 42 | 36 | 50 | 46 | 48 |
| D | 38 | 44 | 52 | 36 | 42 |

Test whether i) The effects of fertilizers and ii) the effects of potato varieties are significant on the yield of potatoes.
8. Four coins are tossed 320 times and the number of heads obtained were recorded as follows

| No of Heads | 0 | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency | 15 | 102 | 108 | 68 | 27 |

Can we regard all the coins as unbiased?

