# SWOT INSTITUTE <br> STATISTICS <br> XI-TEST 

Time: 1 hr .

1. Find the mean deviation about the mean for the data :

| $x_{i}$ | 5 | 10 | 15 | 20 | 25 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{f}_{\mathrm{i}}$ | 7 | 4 | 6 | 3 | 5 |

2. Find the mean deviation about the median for the data

| $\mathrm{x}_{\mathrm{i}}$ | 5 | 7 | 9 | 10 | 12 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{f}_{\mathrm{i}}$ | 8 | 6 | 2 | 2 | 2 | 6 |

3. Find the mean deviation about median for the following data :
Marks 0-10
10-20
20-30
14
30-40
16
40-50
4
50-60
2

Girls
4. Find the mean and standard deviation using short cut method

| $x_{i}$ | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $f_{i}$ | 2 | 1 | 12 | 29 | 25 | 12 | 10 | 4 | 5 |

5. Find the mean and variance for the following frequency distribution in Q. No. 5 and 6.

| Classes | $0-30$ | $30-60$ | $60-90$ | $90-120$ | $120-150$ | $150-180$ | $150-180$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequencies | 2 | 3 | 5 | 10 | 3 | 5 | 2 |

6. 

| Classes | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Frequencies | 5 | 8 | 15 | 16 | 6 |

7. Calculate mean, Variance and Standard Deviation for the following distribution

| Classes | $30-40$ | $40-50$ | $50-60$ | $60-70$ | $70-80$ | $80-90$ | $90-100$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequencies | 7 | 3 | 12 | 15 | 8 | 3 | 2 |

8. Coefficient of variation of two distribution are 60 and 70, and their standard deviations are 21 and 16, respectively. What are their arithmetic means.
9. The following values are calculate in respect of height and weight of the students of a section of Class XI :

|  | Height | Weight |
| :--- | :--- | :--- |
| Mean | 162.6 cm | 52.36 kg |
| Variance | $127.69 \mathrm{~cm}^{2}$ | $23.1361 \mathrm{~kg}^{2}$ |

Can we say that the weights show greater variation than the heights?

