**CHAPTER – 6 MEASURE OF DISPERSION**

1. For the following distribution of marks scored by a class of 40 students, calculate the Range and Quartile Deviation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Class interval | 0 – 10 | 10 – 20 | 20 – 40 | 40 – 60 | 60 – 90 |
| Frequency | 5 | 8 | 16 | 7 | 4 |

1. For the following distribution calculate the Range, Interquartile Range, Quartile Deviation and Coefficient of Quartile Deviation.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Class interval | 15-25 | 25-35 | 35-45 | 45-55 | 55-65 | 65-75 |
| Frequency | 4 | 11 | 19 | 14 | 0 | 1 |

1. Find the mean deviation and coefficient of mean deviation from mean for the following distribution.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Size | 0 – 6 | 6 – 12 | 12 – 18 | 18 – 24 | 24 – 30 |
| Frequency | 4 | 6 | 9 | 4 | 2 |

1. Find the mean deviation and coefficient of M.D from median for the following data:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 |
| Frequency | 2 | 4 | 9 | 18 | 27 | 25 | 14 | 1 |

1. Calculate the coefficient of mean deviation from mode from the following data:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Class interval | 0 –1 0 | 10 – 20 | 20 – 30 | 30 – 40 | 40 – 50 | 50 – 60 | 60 – 70 |
| Frequency | 8 | 12 | 10 | 8 | 3 | 2 | 7 |

1. The number of days that students were missing from school due to sickness in one semester was recorded as:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number of days off sick | 1 – 5 | 6 – 10 | 11 – 15 | 16 – 20 | 21 – 25 |
| Frequency | 12 | 11 | 10 | 4 | 3 |

Estimate the coefficient of mean deviation from mean.

1. The table below gives data on the heights, in cm, of 51 children. Calculate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Class Interval | 140≤h<150 | 150≤ h<160 | 160≤h<170 | 170≤h<180 |
| Frequency | 6 | 16 | 21 | 8 |

1. Mean deviation from median.
2. Mean deviation from mean.
3. Mean deviation from mode.
4. A salesman keeps a record of the number of shops he visits each day.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Shops visited* | 0 – 9 | 9 – 18 | 18 – 27 | 27 – 35 | 35 – 43 |
| *Frequency* | 3 | 8 | 24 | 60 | 21 |

Estimate the coefficient of mean deviation from median.

1. The weights of a number of students were recorded in kg.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Weight (kg)* | 0 - 10 | 10 – 20 | 20 – 30 | 30 – 40 | 40 – 50 |
| *Frequency* | 10 | 11 | 15 |  | 4 |

Calculate standard deviation.