# BAL BHARATI PUBLIC SCHOOL Ganga Ram Hospital Marg, New Delhi-60 

## SUBJECT - MATHEMATICS TOPIC - STATISTICS

Q1. Coefficients of variation of 2 distributions are $70 \% \& 75 \%, \&$ S.D. are $28 \& 27$ respectively. Find their arithmetic means?
Q2. For a group of 200 candidate the mean and S.D. were found to be 40 and 15 respectively. Later on it was found that the score 43 was misread as 34 . Find the correct mean and correct S.D.

Q3. Find the mean deviation about the median of the following frequency distribution:-

| Class | $0-6$ | $6-12$ | $12-18$ | $18-24$ | $24-30$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 8 | 10 | 12 | 9 | 5 |

Q4. The following table gives the distribution of income of 100 families in a village. Calculate mean and variance.

| Income (in Rs.) | $0-1000$ | $1000-2000$ | $2000-3000$ | $3000-4000$ | $4000-5000$ | $5000-6000$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of families | 18 | 26 | 30 | 12 | 10 | 4 |

Q5. Find the mean deviation from the mean and from median of the following distribution:-

| Marks | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of students | 5 | 8 | 15 | 16 | 6 |

Q6. Calculate the mean, median and standard deviation of the following distribution:-

| C.I. $31-35$ | $36-40$ | $41-45$ | $46-50$ | $51-55$ | $56-60$ | $61-65$ | $66-70$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| F | 2 | 3 | 8 | 12 | 16 | 5 | 2 | 3 |

Q7. An analysis of monthly wages paid to workers of two firms A \& B belonging to the same industry gives following result:
No. of workers
Average monthly wages

| Firm A | Firm B |
| :--- | :--- |
| 1000 | 1200 |
| Rs. 2800 | Rs. 2800 |
| 100 | 169 |

Variance of distribution of wages 100

169
in which firm, A or B is there greater variability in individual wages ?
Q8. The mean of 5 observations is $4.4 \&$ their variance is 8.24 . If three of observations are $1,2 \& 6$, find other two observations.
Q9. From the data given below state which group is more variable G or $\mathrm{G}_{2}$ ?

| Marks | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ | $70-80$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group G1 | 9 | 17 | 32 | 33 | 40 | 10 | 9 |
| Group G2 | 10 | 20 | 30 | 25 | 43 | 15 | 7 |

Q10.Find the mean deviation about the median for the following data:-

| $\mathrm{x}_{\mathrm{i}}$ | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{f}_{\mathrm{i}}$ | 7 | 3 | 8 | 5 | 6 | 8 | 4 | 9 |

Q11.Find the mean deviation about the median for the data given:-
$22,24,30,27,29,31,25,28,41,42$
Q12.Calculate the mean, variance and standard deviation for the following distribution :-
Marks above 30\&below 40 below 50 below 60 below 70 below 80 below 90 below 100
$\begin{array}{llllllll}\text { No. of Students } & 3 & 10 & 22 & 37 & 45 & 48 & 50\end{array}$

