## STATISTICS (MEAN MEDIAN MODE)

1. The daily maximum temperature recorded in ${ }^{\circ} \mathrm{C}$ at Delhi during the first week of july, 2005 was as under: $39,37,38,28,30,35,36$. Find the mean temperature recorded.
2. Following are the ages (in years) of 10 teachers in a school. 32, 41, 27, 54, 36, 25, 28, 57, 40, 38.
a) What is the age of the oldest teacher and that of the youngest teacher?
b) Find the range of the ages of the teachers.
c) Find the mean age.
3. Find the arithmetic mean of the numbers $3,0,-1,7,11$.
4. A group of students was given a special test. The test was completed by various students in the following time (in minutes): 18, 20, 21, 23, 25, 25, 29, 31, 31, 37.
a) Find the mean time taken by the students to complete the test.
b) How many students took more than the mean time to complete the test?
c) If the student who took 37 minutes had taken only 23 minutes to complete the test, what would have been the mean time?
5. The mean of 5 observations is 15 . If the mean of the first three obseryation is 14 and that of the last three is 17 , find the third observations
6. Find the mean of the following distribution;

| x | 5 | 15 | 25 | 35 | 45 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| f | 7 | 8 | 20 | 10 | 5 |

7. The heights in cm of 50 boys are given below. Calculate the mean height.

| Height | 150 | 151 | 152 | 153 | 154 | 155 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 3 | 12 | 9 | 6 | 15 | 5 |

8. What is the median weekly salary of workers in a firm whose salaries are Rs.84, Rs.60, Rs.50, Rs.40, Rs.45, Rs.42. Rs.38, Rs, 65, Rs.71?
9. Find the median salary of the following salaries of workers: Rs.56, Rs. 89, Rs.121, Rs.38, Rs.98, Rs.70, Rs.70, Rs. 72.
10. The weights (in kilograms) of 15 students are as follows:
$31,35,27,29,32,43,37,41,34,28,36,44,45,42,30$. Find the median . if the weight 44 kg is replaced by 46 kg and 27 kg by 25 kg , find the new median.
11. The following table represents the marks obtained by a batch of 12 students in certain class tests in statistics and physics.

| S. No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marks <br> (statistics) | 53 | 54 | 32 | 30 | 60 | 46 | 28 | 25 | 48 | 72 |  | 65 |

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| Marks <br> (Physics) | 55 | 41 | 48 | 49 | 27 | 25 | 23 | 20 | 28 | 60 | 43 | 67 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

12. If the numbers $4,8,9,10, x, 16,20,22,26,29$ are in ascending order and their median is 14 , find the value of $x$.
13. In a study of diabetic patients, the following data were obtained:

| Age <br> (in <br> years) | No of <br> Diabetic <br> Patients | Age (in years) | No of Diabetic <br> Patients |
| :--- | :--- | :--- | :--- |
| $10-20$ | 3 | $40-5-0$ | 9 |
| $20-30$ | 6 | $50-60$ | 5 |
| $30-40$ | 14 | $60-70$ | 2 |

14. Construct a frequency polygon for the following data:

| Monthly pocket expenses <br> of students in rupees | Number of students |  |
| :--- | :--- | :--- |
| $0-5$ | 10 |  |
| $5-10$ | 16 |  |
| $10-15$ | 30 |  |
| $15-20$ | 42 |  |
| $20-25$ | 50 |  |
| $25-30$ | 30 |  |
| $30-35$ | 16 |  |
| $35-40$ | 12 |  |

15. The distribution of monthly wages of 40 workers in a factory is given below:

| Monthly wages | Number of works |
| :--- | :--- |
| $210-230$ | 4 |
| $230-250$ | 7 |
| $250-270$ | 5 |
| $270-290$ | 9 |
| $290-310$ | 5 |
| $310-330$ | 4 |
| $330-350$ |  |
|  |  |

16. The following are the scores of two groups of class IX students in a test of general awareness.

| Scores | Group A | Group B |
| :--- | :--- | :--- |
| $50-52$ | 4 | 2 |
| $47-49$ | 10 | 3 |
| $44-46$ | 17 | 4 |
| $41-43$ | 18 | 8 |
| $38-40$ | 20 | 12 |
| $35-37$ | 12 | 17 |
| $32-34$ | 13 | 22 |
| total | 94 | 68 |



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