CLASS 9 MATHS

# **STATISTICS**

### MEDIAN, MODE AND RELATIONSHIP

#### BETWEEN MEAN, MEDIAN AND MODE

#### **EXERCISE**

- **Q.1** Find the median of the following data: 25, 34, 31, 23, 22, 26, 35, 28, 20, 32
- **Q.2** Find the median of the following values: 37, 31, 42, 43, 46, 25, 39, 45, 32
- Q.3 The median of the observations 11, 12, 14, 18, x + 2, x + 4, 30, 32, 35, 41 arranged in ascending order is 24. Find the value of x.
- Q.4 Find the median of the following data: 19, 25, 59, 48, 35, 31, 30, 32, 51. If 25 is replaced by 52, what will be the new median.
- **Q.5** Calculate the median for the following distribution

| Weight (in kg) | Number of students |
|----------------|--------------------|
| 46             | 3                  |
| 47             | 2                  |
| 48             | 4                  |
| 49             | 6                  |
| 50             | 5                  |
| 51             | 2                  |
| 52             | 1                  |

- Q.6 The following data have been arranged in desending orders of magnitude 75, 70, 68, x + 2, x 2, 50, 45, 40 If the median of the data is 60, find the value of x.
- **Q.7** Find the mode from the following data: 110, 120, 130, 120, 110, 140, 130, 120, 140, 120.
- **Q.8** Compute mode for the following data 7, 7, 8, 8, 8, 9, 9, 10, 10, 10, 11, 11, 12, 13, 13

**Q.9** The following table gives the weights of 40 men. Calculate mode.

| Weights (in kg) | Number of men |
|-----------------|---------------|
| 54              | 6             |
| 72              | 6             |
| 80              | 1             |
| 64              | 2             |
| 62              | 6             |
| 60              | 5             |
| 58              | 5             |
| 56              | 4             |
| 63              | 5             |

## **ANSWER KEY**

- **1.** 27
- **2.** 39.
- 3. x = 21.
- 4. Median = 32 New median = 35.
- **5.** 49
- **6.** x = 60
- **7.** 120.
- **8.** 10.54
- **9.** 59.75 kg