CLASS 11

STATISTICS

VARIANCE AND STANDARD DEVIATION

EXERCISE

- **Q.1** Determine the variance and standard deviation for the given data:
 - (i) 65, 58, 68, 44, 48, 45, 60, 62, 60, 50.
 - (ii) 48, 80, 58, 44, 52, 65, 73, 56, 64, 54
 - (iii) 28, 60, 38, 24, 32, 45, 53, 36, 44, 34.
- **Q.2** A set of 25 variates has a mean of 40 and a standard deviation of 5, while a second set of 35 variates has a mean of 45 and a standard deviation of 2. Calculate the combined mean and standard deviation for the two sets of variates taken together.
- **Q.3** Compute the standard deviation for the given distribution:

Class-Interval	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequency	3	1	1	8	17	38	9	3

Q.4 In a patient study, the following data is collected. Determine the arithmetic mean and the standard deviation of the data:

Age (in years)	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
No. of cases	1	0	1	10	17	38	9	3

Q.5 Compute the mean and variance for the given distribution:

Classes	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Frequency	20	24	32	28	20	11	26	15	24

ANSWER KEY