

CLASS – XI (STATISTICS)
ASSIGNMENT (STANDARD)
SECTION – A (One mark Questions)

1. The mean of squared deviations about the mean is called
 (a) *S. D.* (b) *Variance* (c) *M. D* (d) None of these
2. The S.D. of scores 1 ,2,3,4,5 is (a) $\sqrt{2}$ (b) $\sqrt{3}$ (c) $\frac{2}{5}$ (d) $\frac{3}{5}$
3. The S . D. of 10 observations is 4, if each observation is multiplied by 2 then the new S.D. will be (a) 16 (b) 8 (c) 2 (d) none of these
4. The mean deviation of 4 ,5 ,6,7,8 from their median is
 (a) 30 (b) 6 (c) 1.2 (d) 0
5. In a distribution, $n = 10, \sum x = 60, \sum x^2 = 1000$, then S .D. is equal to :
 (a) 64 (b) 826 (c) 8 (d) none of these
6. Variance of the data 2 ,4, 5,6,8,17 is 23.23 . Then variance of 4 ,8 , 10 , 12 16 34 is ----
7. The variance of a variate x is σ^2 , then the variance of $ax + b$, where a, b are constants is ----
8. A group of 80 candidates have their average height is 145.8 cm with coefficient of variance 2.5%. What is the standard deviation of their height ?
9. Write the formula for the variance of grouped data.
10. If mean of variable x is \bar{X} , then write the mean of variable $ax + b$

SECTION – B (Two marks Questions)

11. Find the standard deviation of first 10 natural numbers .
12. If the coefficients of variation of two series are 58 and 69 and their standard deviations are 21.2 and 15.6. What will be their arithmetic means ?
13. Mean and standard deviation of 100 items are 50 and 4 respectively. Find the sum of all the items and the sum of the squares of the items.

SECTION – C (Four - marks Questions)

14. Calculate the mean deviation about mean of the following data :

Class	1 - 10	11 – 20	21- 30	31 -40	41- 50	51-60
Frequency	11	29	18	4	5	3

15. From the prices of shares X and Y below , find out which is more stable and why ?

X	35	54	52	53	56	58	52	50	51	49
Y	108	107	105	105	106	107	104	103	104	101

SECTION – D (Six - marks Questions)

16. Calculate mean and variance for the following frequency distribution:

Class	0-10	10-20	20-30	30-40	40-50
Frequencies	5	8	15	16	6

17. The mean and variance of 7 observations are 8 and 16 respectively . If 5 of the observations are 2 , 4 , 10 , 12 and 14 , find the remaining two observations.

18. For a group of 200 candidates, the mean and the standard deviation of scores were found to be 40 and 15 respectively. Later on it was discovered that the scores of 43 and 35 were misread as 34 and 53 respectively. Find the correct mean and the standard deviation.

19. Find the standard deviation for the following data :

Age	10	20	30	40	50	60	70	80
No. of students	15	30	53	75	100	110	115	125

20. Find the mean and variance of the following distribution:

Classes	0-30	30-60	60-90	90-120	120-150	150-180	180-210
Frequency	2	3	5	10	3	5	2

.....