



INDIAN SCHOOL AL WADI AL KABIR
Department of Mathematics, 2023-2024

CLASS: XI

Statistics

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Q.1.	<i>The mean of 100 observations is 110. If one observation 103 is to be changed as 130, what will be the new mean?</i>							
	A	111	B	110.27	C	100.27	D	90
Q.2.	The mean deviation about the median for the following data: 3, 9, 5, 3, 12, 10, 18, 4, 7, 19, 21.							
	A	9	B	5	C	5.27	D	10
Q.3.	The variance of 50 observations is 5. If each observation is multiplied by 4, find the new variance of the resulting observations.							
	A	80	B	5	C	20	D	100
Q.4.	For a grouped frequency distribution, $\sum f_i = 50$ and $\sum f_i(x_i - \bar{x})^2 = 100$, then standard deviation:							
	A	100	B	10	C	20	D	$2\sqrt{5}$
Q.5.	The mean of first n natural numbers is $\frac{5n}{9}$ then $n =$ _____							
	A	9	B	3	C	10	D	11
Q.6.	The mean of first n natural numbers is							
	A	n	B	$n + 1$	C	$n - 1$	D	$\frac{n + 1}{2}$
Q.7.	(A) If each of the observation $x_1, x_2, x_3, \dots, x_n$ is increased by 'a', where a is a negative or positive number, then the variance remains unchanged. (R) Variance is the mean of the deviations from the mean.							
	A	Both are true and R is the correct explanation	B	Both are true but R is not the correct explanation	C	A is false and R is true	D	A is true and R is false
Q.8.	The mean deviation about the mean for data: 6, 7, 10, 12, 13, 4, 8, 12:							

	A	3	B	2.75	C	0	D	1
Q.9.	The mean of the squares of the deviations from mean is called							
	A	standard deviation	B	mode	C	median	D	variance
Q10.	The range of the data 14, 17, 18, 19, 10, 12, 13 and 17 is							
	A	4	B	7	C	13	D	21
Q.11.	The sum of 10 observations 55 and sum of squares of these observations is 385. Then variance is							
	A	335	B	33.5	C	8.25	D	0
Q.12	The standard deviation of 7, 9, 11, 13, 15							
	A	2.83	B	3.23	C	2.53	D	8
Q13.	The average of 5 observations is 6 and average of three of them is 4, then average of remaining two numbers							
	A	7	B	8	C	9	D	10
Q14.	What is the variance for the following:							
	x	0	1	2	3	4		
	f	2	2	3	2	1		
	A	1.8	B	1.56	C	4.8	D	2.4
Q15.	The mean of 100 observations is 50 and their standard deviation is 5. The sum of squares of all observations is:							
	A	50000	B	250000	C	252500	D	255000
Q16	(A) The mean deviation about mean is always equal to zero (R) The sum of the deviations from mean is zero							
	A	Both are true and R is the correct explanation	B	Both are true but R is not the correct explanation	C	A is false and R is true	D	A is true and R is false

Answers	1	B	2	C	3.	A	4	D
	5	A	6	D	7	D	8	B
	9	D	10	B	11	C	12	A
	13	C	14	B	15	C	16	C
