MATHS

BOOKS - MBD MATHS (ODIA ENGLISH)

STATISTICS

Question Bank

1. If the values observed are $1, 2, \ldots\ldots, n$ each with frequency 1, find the mean value

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2. From the table below, find the mean value and the variance.

Values :	1	2	3	n
Frequency	1	2	3	n

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3. From the tables below, find the mean and the variance. Values: 1 3 5 .....(2n-1) Frequency: 1 1 1..... 1

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4. From the tables below, calculate the mean and the variance.

Values :	2	4	6	$2n$
Frequency	1	1	1	1

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5. From the following tables calculate the mean, mean deviation from the mean and

variance.

Values :	0	1	2....	r	...n
Frequency:	${}^nC_0$	${}^nC_1$	${}^nC_2$	${}^nC_r$	....${}^nC_n$

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6. From the following tables calculate the mean, mean deviation from the mean and variance.

Values :	0	1	2....	r	...n
Frequency:	${}^nC_0$	${}^nC_1$	${}^nC_2$	${}^nC_r$	....${}^nC_n$

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7. The coefficient of variation is defined as $\sigma / \bar{x}$ that is the standard deviation divided by the mean value. Find the coefficient of variation c.v. for each of the following set of observations.

2,3,4,2,5,7,8,9

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8. The coefficient of variation is defined as $\sigma / \bar{x}$ that is the standard deviation divided by the mean value. Find the coefficient of

variation c.v. for each of the following set of observations.

5,7,9,10,7,5,8,9,3

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9. The coefficient of variation is defined as $\sigma / \bar{x}$ that is the standard deviation divided by the mean value. Find the coefficient of variation c.v. for each of the following set of observations.

3,3,3,4,4,4,5,5,5

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10. Suppose the values $x_1, x_2, \ldots . x_n$ having frequency $f_1, f_2 \ldots . . f_n$ respectively have mean value $\bar{x}$ and variation σ^2 .Let a be a fixed real number. Show that the values $x_1 + a, x_2 + a, \ldots . , x_n + a$ with frequency $f_1, f_2 \ldots . f_n$ respectively will have mean value $\bar{x} + a$ and variance σ

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11. From the tables below, find the mean and the variance.

Values :	1	2	5	$(2n-1)$
Frequency	1	1	1	1

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12. Let $x_1, x_2 \ldots x_n$ be a set of observations with mean value 0 and variance σ_x^2 and $y_1, y_2, \ldots, y_m$ be another set of observations with mean value 0 and variance... Find the mean value and variance of the set of

observations $x_1, x_2, , , , x_n, y_1, y_2, \ldots y_m$

combined.

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13. Find which group of the following is more dispersed.

Range	10-20	20-30	30-40	40-50	50-60
(Group A) Frequency	5	1	3	2	1
(Group B) Frequency	1	3	2	3	1

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