INDIAN SCHOOL NIZWA - WORKSHEET

STATISTICS

6. CORRELATION

Name: _____ Date:_____ Class: XI Sec: ___

1. Define Correlation?

2. What is the difference between negative and positive correlations?

3. Find the coefficient of correlation between X and Y series from the data:

X	10	12	8	15	20	25	40
Y	15	10	6	25	16	12	8

4. The data on price and quantity relation of a commodity for 10 months are given below. Calculate coeffieicnt of correlation between price and quantity.

Price (â,¹)	10	14	12	11	9	7	15	16	18	20
Quantity (kg.)	25	20	30	32	35	40	19	16	12	10

5. For the following data, calculate coefficient of correlation between the variables X and Y using Karl Pearson's method.

X	10	6	9	10	12	13	11	9
Y	9	4	6	9	11	13	8	4

6. A group of ten workers of a factory is ranked according to their efficiency by two different judges as follows:

Name of Worker	A	B	C	D	E	F	G	H	I	J
Rank by Judge A	4	8	6	7	1	3	2	5	10	9
Rank by Judge B	3	9	6	5	1	2	4	7	8	10

Calculate the coefficient rank correlation.

7. A group of 8 students got the following marks in mathematics and accountancy tests.

Marks in Maths	50	60	65	70	75	40	80	85
Marks in Accountancy	80	71	60	75	90	82	70	50

Compute the coefficient of rank correlation.

8. Calculate the coefficient of rank correlation from the following data:

X	48	33	40	9	16	16	65	24	16	57
Y	13	13	24	6	15	4	20	9	6	19

9. Calculate the coefficient of rank correlation from the following data:

Marks in Mathematics	12	18	32	18	25	24	25	40	38	22
Marks in Statistics	16	15	28	16	24	22	25	36	34	19