Lab no.11:

From the following trivalent distribution compute all possible partial correlations.

X1	X2	X3
8	10	7
20	30	12
16	25	8
9	14	6
12	16	5
20	24	4
15	20	6

Solution:

The partial correlation between the first and second variables keeping the effect of the third variable constant is given by 0.970.

Correlations

Control Variables			X1	X2
X3	X1	Correlation	1.000	.970**
	X2	Correlation	.970**	1.000

The partial correlation between the second and third variable keeping the effect of the first variable constant is given by 0.775.

Correlations

Control Variables			X2	X3
X1	X2	Correlation	1.000	.775
	X3	Correlation	.775	1.000

The partial correlation between the First and third variables keeping the effect of the second variable constant is given by -0.707.

Correlations

Control Variables			X1	X3
X2	X1	Correlation	1.000	-.707
	X3	Correlation	-.707	1.000

Lab no: 12

A researcher wants to study the correlation between rent no of room and distance from town. The following data are gathered by him.

Rent (000)	No of room	Distance
10	1	3
15	2	5
30	5	2
25	3	2
45	6	1
35	5	3
50	6	3

a. Compute the correlation between rent and no of rooms and keep the as distance constant.

Correlations

Control Variables			X1	X2
X3	X1	Correlation	1.000	.950**
	X2	Correlation	.950**	1.000

The correlation between rent and no of rooms and keeping the distance constant is 0.950.

a. Compute the correlation between rent and distance and keep the no of room constant.

Correlations

Control Variables			X1	X3
X2	X1	Correlation	1.000	.065
	X3	Correlation	.065	1.000

The correlation between rent and no of rooms and keeping the distance constant is 0.065.