Experiment No. (3)

((Double Block Diagram))

This experiment is useful in finding missing values from a station by comparing them with the correct values of other stations in order to find out what is wrong with that station.

These values may represent rainfall rates, temperatures, radiation, or any other equatorial variable.

For example, if we had readings of annual rainfall rates for five stations, and one of these stations recorded inaccurate, missing or wrong values.

Errors in these values occur for several reasons, including:

1- Inaccuracy of the stapler or his negligence in recording the readings.

2- Unavailability of modern and accurate devices and damage to the existing ones.

3- Instruments may not be calibrated.

4- Inaccuracy of the observer in calculating the rates.

The method of work:

1- We put the values of the station whose values are to be corrected. Let the station be and record the values, which represent rain rates for several years, in the form of a column, and values for other stations and in another column. as in the table.

2- The method of accumulating values is used, that is, we collect the values one by one, and so on, and put the results in another column.

3- The accumulation values for a station are plotted on an axis and the rest of the stations are on an axis. The graph will appear in the form of a straight line that deviates at a certain point, which represents the beginning of the wrong values.

The values are corrected in one of two ways:

1- Take the slope of the line before the deviation and multiply each of the values (the points after the deviation of the line) by the slope.

2- We extend the line on its straightness, so the resulting line from the deviation represents the correct values. We record the values of the corrected station in the table below.

الطرقة الاولى:

المحطة A	المحطات B,C,D,E	A بعد التراكم	B, C, D, E بعد التراكم	قيم A بعد التصحيح
0.0	0.0			
0.2	0.2			
0.5	0.5			
0.5	0.5			
1.9	1.9			
0.3	0.3			
0.4	0.4			
0.4	0.4			
0.3	0.3			
0.4	0.4			
0.3	0.3			
0.4	0.4			
0.3	0.3			
0.2	0.2			
0.2	0.2			
0.3	0.3			
0.1	0.1			
0.1	0.1			
0.7	0.9			
0.4	0.6			
0.4	0.5			
0.5	0.8			
0.7	0.6			
0.6	0.7			
0.4	0.6			
0.6	0.4			
0.6	0.4			
0.8	0.3			
0.6	0.8			