**PROBLEMS ON CORRELATION COEFFICIET AND RANK**

1. Calculate the coefficient of correlation for the following data:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | : | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| Y | : | 15 | 16 | 14 | 13 | 11 | 12 | 10 | 8 | 9 |

1. Calculate Spearman’s coefficient of rank correlation for the following data:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | : | 53 | 98 | 95 | 81 | 75 | 61 | 59 | 55 |
| Y | : | 47 | 25 | 32 | 37 | 30 | 40 | 39 | 45 |

1. From the following data of the ranks obtained by 8 students in the computer science and statistics papers, compute rank coefficient of correlation.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks in Computer Science | : | 15 | 20 | 28 | 12 | 40 | 60 | 20 | 80 |
| Marks in Statistics | : | 40 | 30 | 50 | 30 | 20 | 10 | 30 | 60 |

1. Calculate the Coefficient of Correlation for the following data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| X | : | 6 | 2 | 10 | 4 | 8 |
| Y | : | 9 | 11 | 5 | 8 | 7 |

1. Calculate the Coefficient of Correlation for the following data

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | : | 2 | 4 | 6 | 8 | 10 | 12 | 14 |
| Y | : | 4 | 2 | 5 | 10 | 4 | 11 | 12 |