Step-1

Let us consider the following compatibility matrix.

$$A=\begin{bmatrix} 0 & 0 & 1 & 0 & 0 \\ 1 & 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \end{bmatrix}$$

Now, consider the following Hallâ€™s condition.

If every set of *p* women does like at least *p* men, a complete matching is possible.

Now, in the given compatibility matrix, rows 1, 4, and 5 violates Hallâ€™s condition

In those rows, 3 women like only 2 men.

Step-2

Let us consider the sub-matrix of zeros formed by rows 1, 4, and 5 and columns 1, 2, and 5.

It has number of rows = 3

Number of columns = 3

And $n=5$

Therefore,

$$\boxed{\begin{aligned} p+q &= 3+3 \\ &= 6 \\ &> n \end{aligned}}$$