Step-1

Let us consider the following compatibility matrix.

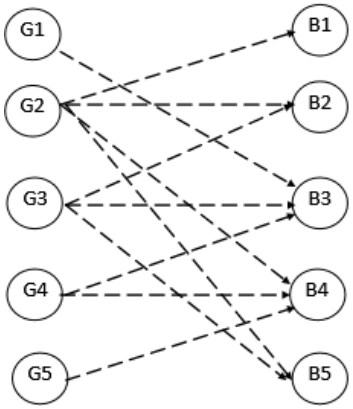
$$A=\begin{bmatrix}0&0&1&0&0\\1&1&0&1&1\\0&1&1&0&1\\0&0&1&1&0\\0&0&0&1&0\end{bmatrix}$$

Now in the above matrix, if $a_{ij}=0$, the i^{th} woman and j^{th} man are not compatible.

And if $a_{ij}=1$, the i^{th} woman and j^{th} man are willing to try.

Step-2

The network diagram showing the compatibility information is shown below.



Step-3

In order to find a maximal set of marriages, let us perform the matching performing the following steps.

Step	Matched pair according to compatibility
1	G1-B3
2	G5-B4
3	G2-B1 OR G2-B2
4	G3-B2 OR G3-B5

Thus, the maximum 4 marriages are possible in this case.

Step-4

Let us consider the following compatibility matrix.

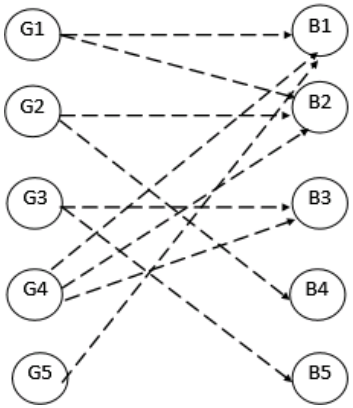
$$B = \begin{bmatrix} 1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 & 0 \\ 0 & 0 & 1 & 0 & 1 \\ 1 & 1 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{bmatrix}$$

Now in the above matrix, if $b_{ij} = 0$, the i^{th} woman and j^{th} man are not compatible.

And if $b_{ij} = 1$, the i^{th} woman and j^{th} man are willing to try.

Step-5

The network diagram showing the compatibility information is shown below.



Step-6

In order to find a maximal set of marriages, let us perform the matching performing the following steps.

Step	Matched pair according to compatibility
1	G3-B5
2	G2-B4
3	G5-B1
4	G1-B2
5	G4-B3

Thus, the maximum 5 marriages (a complete matching) are possible in this case.

A network for *B* with heavier lines on matched pair is shown below