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**Algorithm 2:** Algorithm to Find the total number of spanning trees and minimum spanning trees in a Incomplete Graph

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**Data:** An undirected weighted graph  $G(V, E, W)$

**Result:** Number of Spanning trees and Minimum Spanning Trees

$A[m][n] = \text{AdjacencyMatrix}(G(V, E));$

$D[m][n] = \text{DegreeMatrix}(G(V, E));$

$L[m][n] = D[m][n] - A[m][n];$

$N = (-1)^{(1+1)} |M_{11}|;$

$P = \text{store}(\text{edgeList});$

$\text{print}(\text{"Number of Spanning Tree is", } N);$

$\text{minList} = [];$

**for**  $i = 1$  **to**  $|N|$  **do**

$S[i] = \sum_{n=1}^{|V|-1} P[i].W[n];$

$i = i + 1;$

$\text{minList.append}(S[i]);$

**end**

$\text{minMST} = \min(\text{minList});$

$\text{countMST} = \text{count}(\text{minList}, \text{minMST});$

$\text{print}(\text{"Total number of MST is", } \text{countMST});$

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