	1	2	3	4	5
1	0	8	3	4	7
2	9	0	2	5	10
3	3	11	0	4	9
4	7	8	12	0	5
5	12	9	6	7	0

Column number is start point. Column values include the total cost followed by the node to be passed through in parentheses. Row represent points passed through while getting back to first point.

	2	3	4	5
{}	9 (0)	3 (0)	7 (0)	12 (0)
{2}		20 (2)	17 (2)	18 (2)
{3}	5 (3)		15 (3)	9 (3)
{2,3}			13 (2)	14 (2)
{4}	12 (4)	11 (4)		14 (4)
{2,4}		21 (4)		21 (2)
{3,4}	13 (3)			17 (3)
{2,3,4}				20 (4)
{5}	22 (5)	21 (5)	17 (5)	
{2,5}		27 (5)	23 (5)	
{3,5}	19 (5)		14 (5)	
{2,3,5}			19 (5)	
{4,5}	22 (4)	21 (4)		
{2,4,5}		27 (4)		
{3,4,5}	19 (4)			
{2,3,4,5}				

To find the optimal path, First compute the cost of traveling from first point to each other point then add the cost of traveling through the remaining points and use the lowest cost as your start:

$1 \rightarrow 2 = 8$	$2 \rightarrow \{3,4,5\} = 19$	$8 + 19 = 27$
$1 \rightarrow 3 = 3$	$3 \rightarrow \{2,4,5\} = 27$	$3 + 27 = 30$
$1 \rightarrow 4 = 4$	$4 \rightarrow \{2,3,5\} = 19$	$4 + 19 = 23$
$1 \rightarrow 5 = 7$	$5 \rightarrow \{2,3,4\} = 20$	$7 + 20 = 27$

So, $1 \rightarrow 4$ is the first move and we need to pass through $\{2,3,5\}$. If we look at 4 $\{2,3,5\}$ we see the next move is to 5, so $4 \rightarrow 5$. Now we need to move from 5 through $\{2,3\}$, so we look at 5 $\{2,3\}$ and see the next move is to 2, so $5 \rightarrow 2$. We still need to pass through 3, so the next move is obvious, and we see that 2 {3} is possible, so $2 \rightarrow 3$. Lastly, we need to return to 1, so $3 \rightarrow 1$.

So, the optimal path is $1 \rightarrow 4 \rightarrow 5 \rightarrow 2 \rightarrow 3 \rightarrow 1$, and we can compute the total cost by adding together the costs of all those moves found in the original chart $4 + 5 + 9 + 2 + 3 = 23$.