Travelling Salesman Problem

```
#include <stdio.h>
#include <limits.h>

#define V 4

int tsp(int graph[V][V], int v, int visited[], int pos, int count, int cost, int start) {
    if (count == V && graph[pos][start])
        return cost + graph[pos][start];

    int ans = INT_MAX;
    for (int i = 0; i < V; i++) {
        if (!visited[i] && graph[pos][i]) {
            visited[i] = 1;
            ans = (ans < tsp(graph, v, visited, i, count + 1, cost + graph[pos][i], start)) ?
                    ans : tsp(graph, v, visited, i, count + 1, cost + graph[pos][i], start);
            visited[i] = 0;
        }
    }
    return ans;
}

int main() {
    int graph[V][V] = {
        {0, 10, 15, 20},
        {10, 0, 35, 25},
        {15, 35, 0, 30},
        {20, 25, 30, 0}
```

```
    };
    int visited[V] = {0};
    visited[0] = 1;
    int ans = tsp(graph, V, visited, 0, 1, 0, 0);
    printf("Minimum cost of TSP = %d\n", ans);
    return 0;
}
```

OUTPUT: