NAME- PRINCE RAJ

ROLL NO – A12405218012

SECTION – B.TECH 5CSE13X

**ADA ASSIGNMENT**

#include <bits/stdc++.h>

using namespace std;

#define V 4

int travllingSalesmanProblem(int graph[][V], int s)

{

vector<int> vertex;

for (int i = 0; i < V; i++)

if (i != s)

vertex.push\_back(i);

int min\_path = INT\_MAX;

do {

int current\_pathweight = 0;

int k = s;

for (int i = 0; i < vertex.size(); i++) {

current\_pathweight += graph[k][vertex[i]];

k = vertex[i];

}

current\_pathweight += graph[k][s];

min\_path = min(min\_path, current\_pathweight);

} while (next\_permutation(vertex.begin(), vertex.end()));

return min\_path;

}

int main()

{

int graph[][V] = { { 0, 10, 85, 20 },

{ 10, 0, 55, 25 },

{ 15, 55, 0, 30 },

{ 20, 25, 30, 0 } };

int s = 0;

cout << travllingSalesmanProblem(graph, s) << endl;

return 0;

}

