## **PYTHON PROGRAM**

```
1 #Program to implement Travelling Salesman Problem
 2 answer = []
 3 def tsp(graph, v, currPos, n, count, cost):
      if count == n and graph[currPos][0]:
 4
        answer.append(cost + graph[currPos][0])
 5
 6
        return
 7
      for i in range(n):
        if v[i] == False and graph[currPos][i]:
 8
 9
           v[i] = True
           tsp(graph, v, i, n, count + 1, cost + graph[currPos][i])
10
11
           v[i] = False
12 if __name__ == "__main__":
      n = 4
13
      graph = [[0, 10, 15, 20],
14
15
           [10, 0, 35, 25],
16
           [15, 35, 0, 30],
17
           [20, 25, 30, 0]]
18
      v = [False for i in range(n)]
19
      v[0] = True
      tsp(graph, v, 0, n, 1, 0)
20
      print(min(answer))
21
22
```