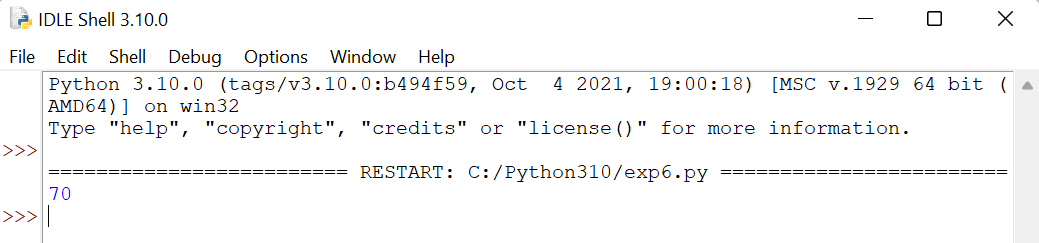
***Experiment 6***

***Code of A\* for TSP:***

MAX = 999999 #Infinity  
def TSP (mask, pos, graph, dp, n, visited):  
 if mask == visited:  
 return graph [pos] [O]  
 if dp [mask] [pos] != -1:  
 return dp [mask] [pos]  
 ans = MAX  
 for city in range (O, n) :  
 if ( (mask & (1 << city) ) == 0:  
 new = graph [pos) [city] + TSP (mask | (1<<city), city, graph, dp, n)   
 ans = min (ans, new)  
 dp [mask] IposJ =ans  
 return dp [mask) [pos]  
graph = [[10, 0, 15, 20],[0, 10, 35, 25],[15, 35, 0, 30],[20,25, 30, 0]}  
n=4  
visited = ( 1<<n ) -1  
r,c = 16,4  
print (TSP(1, 0, graph, dp, n, Visited) )

***Output:***



***\*\*\*\*\****