

Test Data 2 :

- NAME : bier127
- DIMENSION (No of cities) : 127
- Given Optimal solution : 118282

Simulated Annealing Algorithm

| Test Run | Solution | Difference with optimal solution | Running time/ (ms) |
|----------------|------------------|----------------------------------|--------------------|
| Test Run 1 | 276642 | 269100 | 139 |
| Test Run 2 | 288821 | 281279 | 89 |
| Test Run 3 | 290734 | 283192 | 79 |
| Test Run 4 | 266691 | 259149 | 78 |
| Test Run 5 | 287168 | 279626 | 60 |
| Test Run 6 | 296660 | 289118 | 59 |
| Test Run 7 | 280626 | 273084 | 71 |
| Test Run 8 | 281870 | 274328 | 51 |
| Test Run 9 | 279069 | 271527 | 59 |
| Test Run 10 | 281179 | 273637 | 64 |
| Test Run 11 | 271854 | 264312 | 55 |
| Test Run 12 | 278629 | 271087 | 57 |
| Test Run 13 | 278886 | 271344 | 65 |
| Test Run 14 | 277347 | 269805 | 56 |
| Test Run 15 | 277787 | 270245 | 58 |
| Average | 280930.86 | 273388.86 | 69.33 |

Best Solution = **266691**Worst Solution = **29960**Average Time = **69.33**Average Solution = **280930.86**Average Difference with optimal solution = **273388.86**

Test Data 3:

- NAME : bier127
- DIMENSION (No of cities) : 127
- Given Optimal solution : 118282

Simulated Annealing Algorithm

| Test Run | Solution | Difference with optimal solution | Running time/ (ms) |
|----------------|----------|----------------------------------|--------------------|
| Test Run 1 | 276642 | | 139 |
| Test Run 2 | 288821 | | 89 |
| Test Run 3 | 290734 | | 79 |
| Test Run 4 | 266691 | | 78 |
| Test Run 5 | 287168 | | 60 |
| Test Run 6 | 296660 | | 59 |
| Test Run 7 | 280626 | | 71 |
| Test Run 8 | 281870 | | 51 |
| Test Run 9 | 279069 | | 59 |
| Test Run 10 | 281179 | | 64 |
| Test Run 11 | 271854 | | 55 |
| Test Run 12 | 278629 | | 57 |
| Test Run 13 | 278886 | | 65 |
| Test Run 14 | 277347 | | 56 |
| Test Run 15 | 277787 | | 58 |
| Average | | | |

Best Solution = 11200

Worst Solution =12902

Average Time = 54.2

Average Solution = 11916.67

Average Difference with optimal solution = 43374.67