

Assignment: Travelling Salesman Problem using Simulated Annealing algorithm.

Name : Akib Uz Zaman ID: 201714015 Course: CSE-17 Group: A1

Problem Instance	To	$\dot{\eta}$ (Eta)	k	Average Cost	Minimum Cost	Gap= BKS* – Average cost
att48	10000	0.3	1.3806e-23	35561.0784	33837.3991	1723.6793
att48	1000	0.05	1.3806e-23	36467.6343	34947.1364	1520.4979
att48	2000	0.03	1.3806e-23	35953.6441	34200.1004	1753.5436
att48	5000	0.99	1.3806e-23	36474.2003	35614.5732	859.6271
burma14	10000	0.3	1.3806e-23	33.9779	30.8785	3.0994
burma14	1000	0.05	1.3806e-23	32.8967	31.2088	1.6879
burma14	2000	0.03	1.3806e-23	32.6471	30.8785	1.7686
burma14	5000	0.099	1.3806e-23	33.4784	30.8785	2.5999
st70	10000	0.3	1.3806e-23	764.4962	713.3271	51.1691
st70	1000	0.05	1.3806e-23	758.6775	703.5753	55.1022
st70	2000	0.03	1.3806e-23	767.6016	734.8471	32.7545
st70	5000	0.099	1.3806e-23	747.0914	715.0346	32.0568
ulysses16	10000	0.3	1.3806e-23	75.9325	73.9876	1.9449
ulysses16	1000	0.05	1.3806e-23	75.8133	73.9876	1.8256
ulysses16	2000	0.03	1.3806e-23	75.6125	74.5939	1.0186
ulysses16	5000	0.099	1.3806e-23	75.1584	73.9876	1.1707
ulysses22	10000	0.3	1.3806e-23	78.4297	76.1028	2.3269
ulysses22	1000	0.05	1.3806e-23	77.6586	75.3097	2.3488
uysses22	2000	0.03	1.3806e-23	77.2508	76.1028	1.148
uysses22	5000	0.099	1.3806e-23	78.2576	75.7948	2.4628

*Here, Best Known Solution (BKS) is considered as Minimum Cost as all distance are measured using Euclidean 2D formula, therefore BKS of the given data sets are not satisfied. If GEO formula is used then I can use the BKS from the given website link for the respective data set.