

Assignment 3

- Gursharanpreet Singh (2013CS10222)

Q1. Gibbs Sampling

data-tree.dat

#Iterations	Wd-Acc(%)	Ch-Acc(%)	LL	Time(sec)
200000	16.67	68.90	-13.269	196.11
100000	16.67	69.16	-13.264	88.98
50000	16.67	69.16	-13.269	48.41
10000	17.85	70.24	-13.269	8.73

data-treeWS.dat

#Iterations	Wd-Acc(%)	Ch-Acc(%)	LL	Time(sec)
200000	19.02	67.88	-14.42	497.55
100000	19.56	67.99	-14.419	223.41
50000	18.47	67.32	-14.419	122.41
10000	19.02	68.10	-14.425	21.63

data-loops.dat

#Iterations	Wd-Acc(%)	Ch-Acc(%)	LL	Time(sec)
200000	3.57	56.83	-15.100	76.22
100000	3.57	57.55	-15.106	33.85
50000	3.57	56.11	-15.108	18.98
10000	7.14	56.83	-15.117	3.32

data-loopsWS.dat

#Iterations	Wd-Acc(%)	Ch-Acc(%)	LL	Time(sec)
200000	19.83	68.20	-13.921	363.05
100000	16.92	67.74	-13.927	159.96
50000	17.69	68.05	-13.907	85.71

10000	14.61	67.59	-13.936	15.70
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Loopy BP

File name	Wd-Acc(%)	Ch-Acc(%)	LL	Time(sec)
data-tree.dat	4.76	60.05	-587.07	39.320
data-treeWS.dat	8.15	57.83	-1431.33	161.32
data-loops.dat	3.57	53.95	-223.9	48.926
data-loopsWS.dat	8.46	60.03	-1016.11	791.21

Que2:

For Bayesian

Dataset	Avg-Acc	Avg-LL
Andes	78.649	-49.743
Hepan II	79.881	-15.820
Insurance	81.690	-5.911

For Markov

Dataset	Avg-Acc	Avg-LL
Andes	35.516	-88.258
Hepan II	41.42	-28.388
Insurance	40.845	-16.365