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**Assignment 2**

Q3)

**Randomized Motif Search:**

Consensus: CAAAAAAGAGGGGGG

Score: 42

Consensus: AAAAAAGAGGGGGGT

Score: 40

Consensus: AAAAAAGAGCGGGGT

Score: 39

**Gibbs Sampling:**

Consensus: AAAAAAAGGGGGGT

Score: 39

Consensus: AAAAAATAGAGGGGT

Score: 38

Consensus: AAAAAAGAGGGGGGT

Score: 38

From the above analysis we can conclude that **Gibbs Sampling** converges **quicker** than **Randomized Motif Search**, using fewer iterations and less time. We can also see that Gibbs Sampling produces better results giving a score of 38 and Randomized Motif Search giving a best possible score of 39.