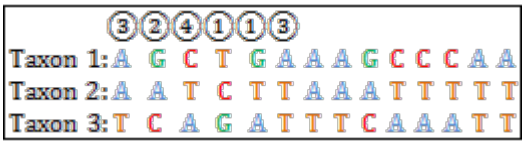
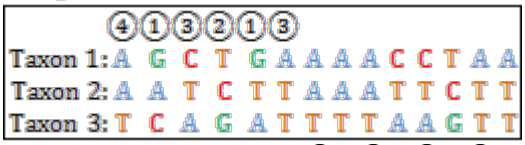


$sr^5 x_5 =$



Remark 9: We refer to ①, ②, ③, ④, ⑤and⑥ in example 1to the frequencies of thepatterns in DNA sequences.

References

[1] A.Dobra, "Markov bases for decomposable graphical models", Paper presented at Grostat V, New Oeleans, 4-6 September 2001, submitted for publication, 2001.
[2] Dobra, and S. Sullivant, "A divide-and-conquer algorithm for generating Markov bases of multi-way tables", Paper presented at the workshop "Multidimensional tables" statistics, combinatorial optimization, and Groebner bases", University of California at Davis, submitted for publication, 15-16 February 2002.
[3] Takemura, and S. Aoki, "Some characterizations of minimal Markov basis for sampling from discrete conditional distributions", Annals of the Institute of Statistical Mathematics, 2003.
[4] Takemura, and S. Aoki,"Distance reducing Markov bases for sampling from discrete space", Bernoulli, to appear, 2005.
[5] Semple, M. Steel, "Phylogenetics", volume 24 of Oxford Lecture Series in Mathematics and its Applications, Oxford University Press, Oxford, (2003).
[6] Agnarsson, R. Greenlaw. "Graph theory, modeling, applications, and algorithms ", United States of America, (2007).
[7] H. Abbass and H. S. Mohammed Hussein " On Toric Ideals for 3×n/3 - Contingency Tables with Fixed Two Dimensional Marginals, n is a multiple of 3", European Journal of Scientific Research, Vol. 123, pp. 83-98, 2014.
[8] H. Abbass and H. S. Mohammed Hussein "Generating 3× n/3 -Contingency Tables Using The Action of Dihedral Group D_n , n is Multiple of 6", J. of Karbala for Mathematics, (accept), 2014.
[9] Felsenstein, "Inferring Phylogenies", Sinauer Associates, Sunderland, (2003).
[10] M. Dyer, and C. Greenhill, "Polynomial-time counting and sampling of two-rowed contingency tables", Theoretical Computer Sciences, 246, (2000), pp. 265-278.
[11] P. Diaconis, and B. Sturmfels, "Algebraic algorithms for sampling from conditional distributions", The Annals of Statistics, 26, pp. 363-397, (1998).
[12] S. Aoki, A. Takemura, "The largest group of invariance for Markov bases and toric ideals", J. Symbolic Computation 43 (5) (2008) 342–358.
[13] S. Aoki, and A.Takemura, "The list of indispensable moves of unique minimal Markov basis of 3×4×K and 4×4×K contingency tables with fixedtwo- dimensional marginals", Technical Report METR 03-38, Department of Mathematical Engineering and Information Physics, The University of Tokyo. Submitted for publication, (2003).
[14] S. Aoki, and A. Takemura, "Minimal basis for connected Markov chain over 3×3×K contingency tables with fixed two-dimensional marginals". Australian and New Zealand Journal of Statistics, 45, pp. 229-249, (2003).
[15] S. Aoki, and A. Takemura," Minimal Invariant Markov Basis for Sampling Contingency Tables with Fixed Marginals", Annals of the Institut of Statistical Mathematics, pp.230-256, 2006.
[16] S. Sullivant, J. Rauh, T.Kahle. "Postive Margins and Primary Decomposition", North Carolina State, pp.1-22, 2012.
[17] W. J. Gilbert," Modern Algebra With Application ",John Wiley, Inc., New Jersey, U.S.A, 2004.