Applied Bioinformatics

Dr. Khuder

Assignment 2

**DUE DATE April 07**

**Q1:** Review the study titled “Simple decision rules for classifying human cancers from gene

expression profiles” and answer the followings:

1. List and briefly explain the machine learning methods used in this study.
2. What are the methods used for the estimation of classification rate?
3. Describe the hierarchical classification of leukemia subtypes as presented in figure 3.

**Q2:** For the study titled “Statistical analysis of gene regulatory networks reconstructed

from gene expression data of lung cancer”:

1. What are the common interesting features shared by protein interaction network, gene regulatory network, and metabolic network?
2. Describe the gene regulatory network as presented in figure 4.