

Quiz
Chapter 8-9
QSAR model building and validation

Full Marks: 10

Time: 10 min

1. Quantitatively a structure can be depicted as
 - a) by its atomic number
 - b) by its molecular weight
 - c) by number of carbon atoms
 - d) by a set of physic chemical properties which are known as descriptors
2. Which of the following descriptors is mostly related with compound's biological activity?
 - a) Molecular weight
 - b) Molar refractivity
 - c) Log P
 - d) percentage atom composition in the molecule
3. In 2D QSAR model the quantitative correlation is established between
 - a) Biological Activity (BA) vs Descriptors
 - b) Log BA vs Descriptors
 - c) BA vs Log Descriptors
 - d) Log BA vs Log Descriptors
4. Multiple Linear Regression (MLR) is possible with
 - a) single y and multiple x variables
 - b) single x and multiple y
 - c) multiple x and multiple y
 - d) none of these
5. MLR in MS Excel can be achieved by
 - a) SUM function
 - b) LINEST function
 - c) TTEST function
 - d) ANOVA
6. The regression coefficients by LINEST command are generated
 - a) in forward order
 - b) in reverse order
 - c) in matrix
 - d) both a and c
 - e) both b and c
7. To compare between observed biological activity and predicted biological activity by QSAR model, one of the simplest way is to perform
 - a) subtraction analysis between the two
 - b) Analysis of standard deviation between the two
 - c) TTEST between the two
 - d) FTEST between the two
8. In order to find out major descriptors contributing significantly in a QSAR model, rationally one can perform
 - a) Trial and error technique
 - b) Randomization technique
 - c) MLR
 - d) Principle Component Analysis (PCA)
9. Drug likeliness score can be calculated by
 - a) OSIRIS properties calculator
 - b) admetSAR
 - c) MOLINSPIRATION
 - d) None of these
10. Which one of the following is true for model establishment and validation in QSAR model?
 - a) Test set-model development & Trainee set-model validation
 - b) Trainee set- model development & Test set- model validation
 - c) Both Test set and Trainee set- model validation
 - d) Both Test set and Trainee set- model development