**Applied Mathematics for IT- Study questions**

**Topic 10 - Game Theory**

Explain following terms:

* conflicting situations
* intelligent and non-intelligent player
* strategy, payoff, non-constant, constant and zero sum
* pure and mixed strategy
* decision tree
* saddle point
* game value

Study questions:

1. What are the elements of each model of a game, what are their features?
2. What is a matrix and multi-matrix game?
3. What is a solution of a game?
4. What is a pure strategy, how do we find it?
5. What is a mixed strategy and how do we find it?
6. What is equilibrium point, what are the characteristics of this point, how it works to solve the game?
7. What is maximin strategy and where is it used?
8. What is minimax strategy and where is it used?
9. What do you know about the matrix game's solvability?
10. Describe the saddle point of the game and its meaning.