**CS3096 COMPUTATIONAL INETELLIGENCE LABORATORY**

**Conduction & Evaluation Plan**

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| **Module Number** | **Programs to be conducted** | **Max Marks** |
| 1 | Water Jug Problem & Eight Puzzle Problem using BFS & DFS | 10 |
| 2 | Water Jug Problem & Eight Puzzle Problem using Best First Search & A\* Algorithm | 10 |
| 3 | Tic-Tac-Toe using Min-Max search and Alpha-Beta pruning | 10 |
| 4 | Genetic Algorithms to optimize a mathematical function | 10 |
| 5 | 1. Download data sets **Iris & Vowel** from UCI machine learning repository**.** 2. Clustering (K-means Algorithm) | 10 |
| 6 | 1. Download data sets **Dermatology & Sonar** from UCI machine learning repository**.** 2. Data Preprocessing: (1) Feature selection (Ranking of feature using Information Gain (IG) attribute evaluation, Chi-squared attribute evaluation) (2) Feature extraction using Principle Component Analysis (PCA) [use inbuilt function] | 10 |
| 7 | Classification task using classifiers (Linear Regression, Decision Tree, Support Vector Machine (SVM), Random Forest) [use inbuilt function] | 10 |
| 8 | Text Data Preprocessing [text data **WebKB** (World Wide Knowledge Base) is collected by Craven in 1998] | 10 |
| 9 | Overall Final Evaluation | 20 |
| **Total** | | **100** |