# 2024

## COMPUTER SCIENCE
### (Practical)

### Paper : CSMP-305

### (Artificial Intelligence)

### Full Marks : 20

In the answer script, mention the following for the experiment.

        (i) Problem Statement

        (ii) Procedure

        (iii) Code/Instructions

        (iv) Report (i.e., Output)

        (v) Discussion

Answer *any one* question.

1. Draw the decision tree using the ID3 algorithm on the Golf Play dataset, where Play is the class label. Also, find out the class label of unknown samples using Naïve Bayes Classifier.

2. Apply DIANA (Single Linkage, Complete Linkage and Avg. Linkage) on the Irish dataset for clustering.

3. Draw the decision tree using the CART algorithm on the Pima Indians Diabetes (Kaggle) dataset where Diabetes is the class label.

4. Apply fuzzy c means on The Boston Housing Dataset (Kaggle).

5. Apply backpropagation algorithm on a sample {1,1,0,1} with class label {1,0}.
   [Note : network topology 4-3-2-2]

6. Apply perceptron for the realization of bipolar AND, Bipolar OR, bipolar NAND.

7. Apply a Naïve Bayesian algorithm on Buy Computer Dataset to identify class labels of unknown samples.

8. Apply AGNES (Single Linkage, Complete Linkage and Avg. Linkage) on the Boston House Price dataset and draw the dendrogram.

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