2022

COMPUTER SCIENCE

(Practical)

Paper : CSMP-305

(Artificial Intelligence)

Full Marks : 50

Laboratory Experiments (in Python)

Conduct ***any one*** experiment.

1. Apply K means and K-medoid algorithms on Irish dataset using library function for clustering.
2. Apply AGNES (Single Linkage, Complete Linkage and Avg. Linkage) on Irish dataset for clustering.
3. Draw the decision tree using ID3 algorithm on Pima Indians Diabetes (Kaggle) dataset where Diabetes is the class label.
4. Apply CART algorithm on Buy Computer Dataset.
5. Apply fuzzy c means on The Boston Housing Dataset (Kaggle).
6. Apply back propagation algorithm on a sample {1, 1, 0, 1} with class label {1, 0}. [NB: network topology 4-3-3-2-2]
7. Apply perceptron for realization of bipolar AND, bipolar OR, bipolar NAND.
8. Apply naive Bayesian algorithm on Buy Computer Dataset to identify class label of unknown samples.

In the answer script mention the following for each experiment—

1. Problem Statement
2. Procedure
3. Code/Instructions
4. Report (i.e., Output)
5. Discussion.