

**Computer Science and Engineering Department, SVNIT, Surat**  
**M.Tech-I, Semester-I**  
**Machine Learning (CSE605)**  
**End Sem Practical Examination**

**Time: 30 mins**

**Instruction:**

1. This problem statement is for even roll numbers.
2. Use of the internet is restricted.

Apply Multilayer Perceptron (NN) over the given data set. And do following steps:

1. Drop column unwanted column from the data set (hash column).
2. Divide the given dataset into training and testing set, input (X) and output (Y) (malware column in the dataset) parameters.
3. Apply NN algorithm over the given dataset (i.e. `mlp = MLPClassifier(hidden_layer_sizes=(100,100,100),max_iter=1000, random_state=42))`  
Changes the above given parameters to achieve better accuracy.
4. Identify associated accuracy, precision, recall over the given dataset.

Note: Dataset is attached with this document.