**Assignment 20.1**

1. What are the three stages to build the hypotheses or model in machine learning?

* Building the model.
* Testing the model.
* Applying the model.

1. What is the standard approach to supervised learning?

To divide it into training and testing data.

1. What is Training set and Test set?

The training set is an example for the learner while as the test set is to check the accuracy of the hypotheses to build a better model.

1. What is the general principle of an ensemble method and what is bagging and boosting in ensemble method?

The general principle of an ensemble method is combining the predictions of several models to create a single model. Bagging is used for improving classification schemes while boosting is used to reduce the bias of the combined model.

1. How can you avoid overfitting ?

Overfitting can be avoided by cross validation which splits the data into training and test set.