

Ans. No. 6 :- Discuss the various methods for
Sec-B evaluating the accuracy of a
Classifier or predictor.

⇒ Evaluating the Accuracy of a
Classifier or predictor.

* Cross-validation :-

→ In k -fold cross-validation, the initial data is randomly partitioned into k mutually exclusive subset or "folds" D_1, D_2, \dots, D_k , each of approximately equal size.

→ Training and testing is performed k times.

→ In iteration i , partitioned D_i is reserved as the test set, and the remaining partitions are collectively used to the model

* Bootstrap :-

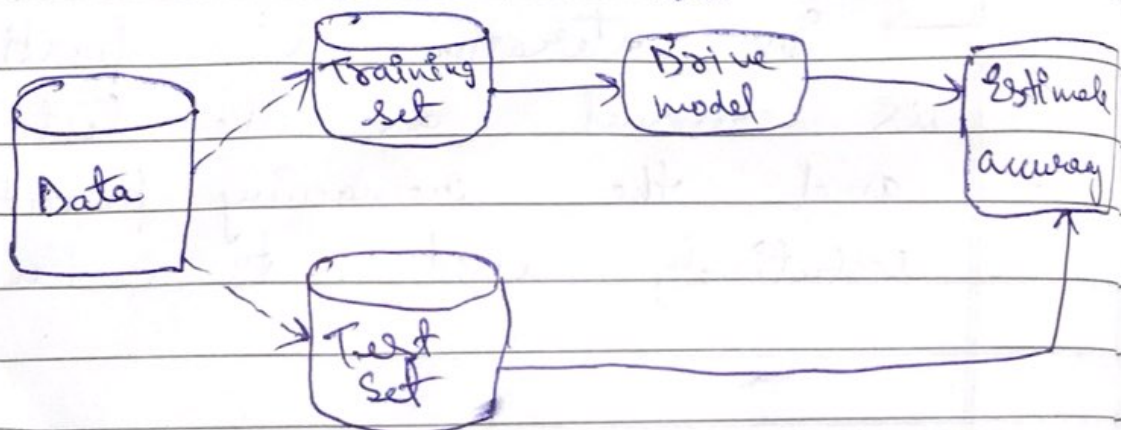
→ The bootstrap method samples the given training tuples uniformly with replacement.

→ That is, each time a tuple is selected, it is equally likely to be selected again and readded to the training set.

* Holdout method :-

→ In holdout method the given data are randomly partitioned into two independent sets: a training set and a test set.

→ The training set is used to derive the model, whose accuracy is estimated with the test set.



* Random subsampling

→ It is a variation of a holdout method in which the holdout method is repeated k times

→ The overall accuracy estimate is taken as the average of the accuracies obtained from each iteration.