

Worksheet

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Name:

Roll No: Class: Section:

Date:

CLASSIFICATION AND CLUSTERING

Unit-9

A. State True or False.

1. K means clustering is a repetitive process.
2. Binary classification algorithms group people with similar characteristics who are most likely to buy your product or service.
3. Accuracy can be defined as the proportion of positive cases that are correctly identified.

B. Answer the following questions.

1. Differentiate between binary classification and k means clustering.
2. For an AI model recall is 0.22 and precision is 0.33. Calculate the F1 score of the model. Also state the range of F1 score.
3. Why is F1 score called the better metric for judging a model's performance?
4. An AI model studies data samples of 1000 patients and predicts osteoporosis. The prediction categories and their numbers are given as follows:

TP = 500 TN = 304

FP = 90 FN = 106

Create a confusion matrix using the above information. Also calculate Accuracy, Recall, Precision and F1 Score.