Function takes in estimator, training data, test data, a Boolean value indicating if the estimator is a grid search, and the cross validation splitting strategy if the estimator is not a grid search, and returns the accuracy, precision, recall, f1, and the ROC-AUC scores for the model and a confusion matrix visualization. If ‘grid\_search parameter is set to “True” then the function will not perform cross validation on the model. Based off of Lindsey Berlin’s evaluate function found at: <https://github.com/lindseyberlin/Cat-in-the-Dat-Project/blob/main/notebooks/Lindsey/EDA-Initial-Models.ipynb>

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Inputs:

* Estimator - Estimator object
* X\_tr – X\_train dataframe
* X\_te – X\_test dataframe
* Y\_tr – y\_train dataframe
* Y\_te – y\_test dataframe
* Cv – If cross\_val set to true this determines the cross-validation splitting strategy. Takes in all value options for sklearn.model\_selection\_cross\_val\_score “cv” parameter:
  + - None, to use the default 5-fold cross validation,
    - int, to specify the number of folds in a (Stratified)KFold,
    - CV splitter,
    - An iterable yielding (train, test) splits as arrays of indices
* grid\_search – “ Boolean indicating whether a the estimator is a GridSearchCV object, if set to “False” a cross validation will be performed with the number of iterations set by the “cv” parameter. Default value is “False”.

Returns – nothing is returned