Given the IRIS dataset (consists of 150 samples, four input features, and three different output classes), train and compute the performances of the following classifiers using 10-fold cross-validation:

1. The classifiers are: (a) kNN (k-nearest neighbor), (b) SVC ( support vector classifier), (c) ETC ( Extra Tree Classifier), (d) Bagging, (e) DTC ( Decision Tree Classifier) and (f) LR ( Logistic Regression).
2. Compute and show the following performances metrics for each of the classifiers: (a) accuracy, (b) balanced accuracy, (c) Matthews Correlation Coefficient, (d) Sensitivity, (e) Specificity, (f) F1-score, and (g) confusion matric.
3. Build two different ensemble classifiers by Stacking [1-4] – each of the classifiers will have a base layer and a meta-layer. Each base-layer will consist of three base-classifiers, and each meta-layer will consist of one classifier - taken from the classifiers listed in Question #1. Compute and show the performance of these two classifiers in terms of the metrics listed in Question #2.