

## PROJECT DEVELOPMENT PHASE

### MODEL PERFORMANCE TEST

Team ID	PNT2022TMID06896
Project Name	A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM
Maximum Marks	10 marks

#### MODEL PERFORMANCE TESTING:

Project team shall fill the following information in model performance testing template.

S. No.	Parameter	Values	Screenshot
1.	Model Summary	The handwritten digit recognizer helps in predicting the number on the image. We use the libraries from tensor flow for building the model. This the model that was built using convolutional neural network(CNN)	<pre>[ ] from tensorflow.keras.models import Sequential     from tensorflow.keras.layers import Convolution2D,MaxPooling2D,Flatten,Dense     model = Sequential()     model.add(Convolution2D(64, (3,3), input_shape=(28,28,1),activation='relu'))     model.add(Convolution2D(32,(3,3),activation='relu'))     model.add(Flatten())     model.add(Dense(number_of_classes, activation='softmax'))</pre>
2.	Accuracy	Training Accuracy – 99% Validation Accuracy – 100%	<pre>[ ] metrics = model.evaluate(X_test, Y_test, verbose=0)     print("Metrics(Test loss &amp; Test Accuracy):")     print(metrics)  Metrics(Test loss &amp; Test Accuracy): [0.03019659034907818, 0.9907000064849854]</pre>

3	Metrics	Confusion matrix	
4.	Metrics	ROC(Receiver Operating System)	
5.	Metrics	Precision – Recall or PR curve	