Data Science - Technical Evaluation Sheet

Candidate Name:

LEVEL 1: **Panel Name:** _____ **LEVEL 2: Panel Name:**

NA: Not Applicable, **N:** Don't know, **A-:** Understands Basics **A:** Acceptable/Good **E:** Excellent

Basics of Data Science

AI vs ML vs Deep Learning		Regression		Clustering	
Lifecycle of ML projects		Classification		logistic & linear regression	
What is Data preprocessing?		Bias vs variance tradeoff		Confusion matrix	
What is Gradient descent?		What is cross validation		Dimensionality reduction	
What is Mean Square error?		supervised, Unsupervised & reinforcement learning		Cost/ Error Functions	
What is Epoch?		Association Rule Learning		Overfitting	

Statistics

What is Mean, Median and Mode?		Pareto principle		Standard deviation	
Mean Squared Error		Law of Large numbers		Skewness	
What is Central Limit Theorem?		Statistical significance		Explain ANOVA	
Hypothesis Testing		p-value		chi squared test	
A/B Testing		Pearson's correlation		poisson distribution	
Confidence intervals		Z-Score			

Machine Learning Algorithms

K-Means		bagging		decision tree regression & classifier	
KNN & Naïve Bayes		Boosting		Adaboost algorithm	
Support Vector Machine		random forest vs decision tree		gradient boost algorithm	
Gini impurity and Entropy		NLP		voting classifier	
One Hot Encoding		Multiple Linear Regression		Transformers	

Deep Learning

What are neural networks?		GAN		Auto encoder	
CNN		Explain transfer learning		Why are LSTMs preferred over RNNs?	
RNN		LSTM		Difference b/w LSTM GRU	
What is back propagation		Tensorflow		Pytorch	
OpenCV		Computer Vision		Tensor flow play ground	

Author: Praveen Kumar – prvnktech@gmail.com