**Question-1: Why can’t we use accuracy as a metric for an imbalanced dataset?**

**A:We cannot use accuracy as a metric for imbalanced dataset because even for a dumb model ,accuracy will be high.For example if a model predicts every point as negative and 90 percent of data is negative,accuracy will be high.**

**Question-2: In which scenario we will prefer recall over precision? What are examples from the real world where a high precision model is desirable and when a high recall model is desirable?**

**A:We prefer recall over precision when false negatives are more important in our data and we want them as less as possible and we prefer precison over recall when false positives are more important i.e we want them as less as possible.Example,to launch a satellite ,predict whether it is bad day or good day,precision is preferred here.**

**Question-3: What are the different performance metrics that can be used for Multiclass classification problems?**

**A: 1.Accuracy**

**2.Precision**

**3.Recall**

**4.F1 score**

**5.ROC AUC**

**6.Multi class log loss**

**7.confusion matrix**

**What is macro averaged precision and micro averaged precision?**

**A:They are used for multi class classification.micro average is the sum of true positives of all classes by sum of all tp’s plus sum of all fp’s of all classes.Macro averaged precison Is precison of all classes by total no of classes.**

**Question -4 Which of the following statements is/are correct about AUC metric ?(A,B,D)**

**a) It tells how much the model is capable of distinguishing between classes.**

**b) The AUC of a random model is 0.5.**

**c) We can use AUC only for binary classification problems.**

**d) Mathematically,it is the expectation that a uniformly drawn random positive is ranked before a uniformly drawn random negative.**

**Question-5 : What is the most common metric used for Forecast Accuracy(Future prediction on Stock Market, Future Sale in Business)?**

**A: We typically use Mean Absolute Percantage Error(MAPE) as a metric for prediction on stock market**