Q41) Among the following identify the one in which dimensionality reduction reduces.

a) Performance
b) statistics
c) Entropy
d) Collinearity

Answer - D) Dimensionality reduction reduces collinearity.

Q42) Which of the following machine learning algorithm is based upon the idea of bagging?

a) Decision Tree

b) Random Forest

c) Classification

d) SVM

Answer - B) Random Forest is based on the idea of bagging.

Q43) Choose a disadvantage of decision trees among the following.

e) Decision tree robust to outliers

f) Factor analysis

g) Decision Tree are prone to overfit

h) all of the above

Answer - C) Decision trees are prone to overfitting.

Q44) What is the term known as on which the machine learning algorithms build a model based on sample data?

i) Data Training
j) Sample Data
k) Training data
l) None of the above

Answer - C) Training data

Machine learning algorithms build a model based on sample data, known as **"training data,"** in order to make predictions or decisions without being explicitly

Q45) Which of the following machine learning techniques helps in detecting the outliers in data?

m) Clustering
n) Classification
o) Anomaly detection
p) All of the above

Answer - C) Anomaly detection

- ***Anomaly detection*** systems are either manually built by experts setting thresholds on data or constructed automatically by learning from the available data through ***machine learning*** which finds the ***outliers of a dataset*** that doesn't belong
- It helps in monitoring the cause of chaos engineering by ***detecting outliers,*** and informing the responsible parties to act
- Therefore, the right option is ***anomaly detection***

Q46) Identify the incorrect numerical functions in the various function representation of machine learning.

q) Support Vector
r) Regression
s) Case based
t) Classification

Answer- C) Case-based is not numerical functions in the various function representation of machine learning.

Q47) Analysis of ML algorithm needs

u) Statistical learning theory
v) Computational learning theory
w) None of the above
x) Both a and b

Answer – d) Analysis of ML algorithms needs both statistical learning theory and computational learning theory.

Q48) Identify the difficulties with the k-nearest neighbor algorithm.

y) Curse of dimensionality
z) Calculate the distance of test case for all training cases
aa) Both a and b
bb) None

Answer: c) both the curse of dimensionality and the calculation of distances pose difficulties in implementing the k-nearest neighbor algorithm.

Q49) The total types of the layer in radial basis function neural networks are _

a) 1
b) 2
c) 3
d) 4

Answer: c) The total number of layers in a radial basis function (RBF) neural network is 3.

Q50) Which of the following is not a supervised learning

a) PCA
b) Naïve bayes
c) Linear regression
d) KMeans

Answer - a) PCA Is not supervised learning.