

# Assignments 3

**\*\*Questions 41-50:\*\***

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

- a) Performance
- b) Statistics
- c) Entropy
- d) Collinearity

**\*\*Answer: d\*\***

42) 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\*\***

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

- a) Decision tree robust to outliers
- b) Factor analysis
- c) Decision Tree are prone to overfit
- d) all of the above

**\*\*Answer: c\*\***

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

- a) Data Training

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- b) Sample Data
- c) Training data
- d) None of the above

**\*\*Answer: c\*\***

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

- a) Clustering
- b) Classification
- c) Anomaly detection
- d) All of the above

**\*\*Answer: c\*\***

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

- a) Support Vector
- b) Regression
- c) Case based
- d) Classification

**\*\*Answer: a\*\***

47) Analysis of ML algorithm needs

- a) Statistical learning theory
- b) Computational learning theory
- c) None of the above
- d) Both a and b

**\*\*Answer: d\*\***

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

- a) Curse of dimensionality
- b) Calculate the distance of test case for all training cases
- c) Both a and b
- d) None

**\*\*Answer: c\*\***

49) The total types of the layer in radial basis function neural networks is \_\_\_\_\_

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

**\*\*Answer: a\*\***

50) Which of the following is not a supervised learning

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

**\*\*Answer: d\*\***

**\*\*Questions 51-60:\*\***

51) What is unsupervised learning?

- a) Number of groups may be known
- b) Features of groups explicitly stated
- c) Neither feature nor number of groups is known

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d) None of the above

**\*\*Answer: c\*\***

52) Which of the following is not a machine learning algorithm?

a) SVM

b) SVG

c) Random Forest Algorithm

d) None of the above

**\*\*Answer: b\*\***

53) \_\_\_\_\_ is the scenario when the model fails to decipher the underlying trend in the input data

a) Overfitting

b) Underfitting

c) Both a and b

d) None of the above

**\*\*Answer: b\*\***

54) Real-Time decisions, Game AI, Learning Tasks, Skill acquisition, and Robot Navigation are applications of .....

a) Reinforcement learning

b) Supervised learning

c) Unsupervised Learning

d) None of the above

**\*\*Answer: a\*\***

55) What is called the average squared difference between classifier predicted output and actual output?

a) Mean relative error

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- b) Mean squared error
- c) Mean absolute error
- d) Root mean squared error

**\*\*Answer: b\*\***

56) Logistic regression is a ..... regression technique that is used to model data having a ..... outcome.

- a) Linear, binary
- b) Linear, numeric
- c) Nonlinear, binary
- d) Nonlinear, numeric

**\*\*Answer: a\*\***

57) You are given reviews of few Netflix series marked as positive, negative and neutral. Classifying reviews of a new Netflix series is an example of

- A. supervised learning
- B. unsupervised learning
- C. semi-supervised learning
- D. reinforcement learning

**\*\*Answer: A\*\***

58) Following is a powerful distance metric used by Geometric model

- A. euclidean distance
- B. manhattan distance
- C. both a and b
- D. square distance

**\*\*Answer: C\*\***

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59) Which of the following techniques would perform better for reducing dimensions of a data set?

- A. removing columns which have too many missing values
- B. removing columns which have high variance in data
- C. removing columns with dissimilar data trends
- D. none of these

**\*\*Answer: B\*\***

60) Supervised learning and unsupervised clustering both require which is correct according to the statement.

- A. output attribute.
- B. hidden attribute.
- C. input attribute.
- D. categorical attribute

**\*\*Answer: C\*\***