## **SOLUTIONS**

**Answer 1.** (d) Collinearity

Answer 2. (b) Random Forest

Answer 3. (c) Decision Tree are prone to overfit

**Answer 4.** (c) Training data

**Answer 5.** (c) Anamoly detection

Answer 6. (c) Case based

**Answer 7.** (d) Both a and b (Statistical learning theory and Computational learning theory)

**Answer 8.** (c) Both a and b (Curse of dimensionality and Calculate the distance of test case for all training cases)

**Answer 9.** (c) 3

Answer 10. (a) PCA

**Answer 11.** (c) Neither feature nor number of groups is known

Answer 12. (b) SVG

Answer 13. (b) Underfitting

Answer 14. (a) Reinforcement learning

**Answer 15.** (a) Mean relative error

Answer 16. (c) Nonlinear, binary

**Answer 17.** (a) Supervised learning

**Answer 18.** (c) Both a and b (euclidean distance and manhattan distance)

**Answer 19.** (a) removing columns which have too many missing values

Answer 20. (c) Input attribute

**Answer 21.** (a) SVM allows very low error in classification

**Answer 22.** (c) 2 and 3 (Depth of Tree and Learning rate)

- **Answer 23.** (a)  $(6/10 \log (6/10) + 4/10 \log (4/10))$
- Answer 24. (a) Weights are regularized with the l1 norm
- **Answer 25.** (b) Logistic regression and Gaussian discriminant analysis
- Answer 26. (d) Either 2 or 3
- Answer 27. (b) Increase by 5 pound
- **Answer 28.** (d) Minimize the squared distance from the points
- **Answer 29.** (b) As the value of one attribute increases the value of the second attribute also increases
- **Answer 30.** (b) Convolutional Neural Network