**Applied Machine Learning Important Questions**

1. What do you mean by well-posed learning problem? Explain with example. (Unit-1)
2. Explain the steps in designing the learning system. (Unit-1)
3. Write Some disciplines and examples of their influence on machine learning. (Unit-1)
4. Explain the following with examples: (Unit-1)
   1. Find-S algorithm
   2. Candidate-Eliminate algorithm
5. Explain General-to-Specific order of hypothesis (Unit-1)
6. Define Decision Tree learning. Explain the decision tree learning algorithm with an example. (Unit-2)
7. Describe Hypothesis search space in decision tree learning. (Unit-2)
8. Give decision trees to represent the following boolean functions: (Unit-2)



1. Explain the Single perceptron with a neat diagram. (Unit-2)
2. Algorithms to update the weight vector to converge to acceptable hypothesis:(Unit-2)
   1. Perceptron Training Rule
   2. Delta Rule
3. Visualizing the hypothesis space to understand gradient descent. (Unit-2)
4. What are the steps in Back propagation algorithm? Why a Multilayer neural network is required? (Unit-2)
5. Explain the basic definitions of Sampling theory. (Unit-3)
6. Write short notes on the following: (Unit-3)
   1. Binomial Distribution
   2. Estimating Hypothesis accuracy
7. Explain the Bayes theorem with an example. (Unit-3)
8. Explain Naïve Bayes Classification. (Unit-3)
9. What are Bayesian Belief nets? Where are they used? (Unit-3)
10. Explain EM algorithm. (Unit-3)
11. Why it is necessary to estimate the accuracy of hypothesis? (Unit-3)
12. Explain K-nearest neighbour learning algorithm with an example. (Unit-4)
13. Explain radial basis functions and Case-based reasoning. (Unit-4)
14. Explain in detail about mistake-bound model of learning. (Unit-4)
15. Discuss Locally weighted linear regression (Unit-4)
16. Differentiate Lazy vs Eager Learners. (Unit-4)
17. Describe the Genetic Algorithm (GA) steps using the Population, Fitness function, other necessary data and hypothesis it returns (Unit-5)
18. Brief on Learning sets of First Order rules. (Unit-5)
19. Write down Q-learning algorithm. (Unit-5)
20. What do you mean by reinforcement learning? How reinforcement problem differs from other function approximation tasks.? (Unit-5)