

BHARTIYA INSTIYUTE OF ENGINEERING & TECHNOLOGY-SIKAR

Department of Computer Science & Engineering

VI Semester

SUB: MACHINE LEARNING (6CS4-02)

QUESTION BANK

UNIT-1

Short type

- Q1. Enlist types of Machine Learning.
- Q2. Write down Applications of Machine Learning.
- Q3. Define Supervised machine learning.
- Q4. Define Semi-Supervised machine learning?
- Q5. Define Unsupervised machine learning?
- Q6. Define Reinforcement machine learning?
- Q7. What is random about a random forest?
- Q8. Enlist all the algorithm used for Supervised learning algorithm
- Q9. Differentiate classification and regression.
- Q10. What are Bias and Variance?
- Q11. What is a Decision Tree.
- Q12. What is SVM in Supervised learning algorithm.

Long type

- Q1. Differentiate Linear Regression with Logistic Regression Model in detail?
 - Q2. Explain Naive Bayes classifier Decision Tree in detail?
 - Q3. What do you mean by K nearest neighbor? Explain?
 - Q4. Describe the working behaviour of support vector machine using diagram. ?
 - Q5. Explain Random forest algorithm in detail?
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UNIT-2

Short type

- Q1. Define Hierarchical clustering.
- Q2. What is FP in FP growth algorithm?
- Q3. Enlist all the algorithm used for Unsupervised learning algorithm.
- Q4. What is k in k-means clustering algorithm.
- Q5. Explain the difference between KNN and K-means Clustering.

Long type

- Q1. How to group unlabeled data by using k-means clustering? Explain.
 - Q2. Explain association rule mining with an example.
 - Q3. Explain FP Growth algorithm with an example.
 - Q4. Explain Gaussian mixture model with an example.
 - Q5. Differentiate Hierarchical and probabilistic clustering.
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UNIT-3

Short type

- Q1. What do you understand by PCA?
- Q2. What do you understand by Filter methods.
- Q3. What do you understand by Wrapper methods.
- Q4. What do you understand by Embedded methods.
- Q5. What do you mean by feature selection.
- Q6. Enlist methods used for feature selection.
- Q7. What do you mean by feature/variable ranking?
- Q8. What do you mean by model selection?
- Q9. What is a chi square test used for?

Long type

- Q1. Explain Principal component analysis in detail.
 - Q2. What do you mean by Singular value decomposition? Explain.
 - Q3. Explain any one Machine Learning algorithms to evaluate.
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UNIT-4

Short type

- Q1. Markov chain process is an example of which type of ML?
- Q2. What do you mean by policy evaluation.
- Q3. Differentiate policy iteration and value iteration.
- Q4. What do you mean by SARSA.

Long type

- Q1. What do you mean by Markov decision process (MDP)?
 - Q2. Explain the concept of Bellman equation in Reinforcement Machine Learning.
 - Q3. Explain policy evaluation using Monte Carlo using an example.
 - Q4. What do you mean by Q Learning? Explain in detail.
 - Q5. What do you mean SARSA? Explain in detail.
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UNIT-5

Short type

- Q1. Define the Deep learning?
- Q2. Define Artificial intelligence.
- Q3. What is a neural network?
- Q4. Explain the scope of Machine Learning in short.

Long type

- Q1. What do you mean by Collaborative filtering?
 - Q2. What do you mean by Content-based filtering?
 - Q3. What do you mean by Artificial neural network?
 - Q4. Discuss the relationship among Artificial Intelligence, Machine Learning and Deep Learning.
 - Q5. Explain the scope of Machine Learning in today's world in detail.
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