SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR

(Autonomous)

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code : Machine Learning (**18CS5010**)   **Course & Branch**: M.Tech - CSE

Year & Sem: I-M.Tech & I-Sem   **Regulation:** R18

UNIT –I

1. Explain in detail distance based methods?   [10M]

2. Discuss the nearest neighbor with a neat sketch?   [10M]

3. What is decision trees .Explain in detail?   [10M]

4. Write a detail note on naïve bayes linear models?   [10M]

5. What is support vector machine .Discuss in detail?   [10M]

6. Explain the following

    a)Linear regression   [05M]

    b) Logistic Regression   [05M]

7. Define Multiclass Classification with a neat diagram?   [10M]

8. Give a detail note on kernel methods?   [10M]

9. Define ranking and its concepts?   [10M]

10. What is the significance of classification & explain their types?   [10M]

UNIT-II

1. Define clustering. What are the different types of clustering explain in detail?   [10M]

2. Explain generative models in detail.   [10M]

3. Discuss PCA & its kernel PCA?   [10M]

4. Explain the following

    a)Matrix completion   [05M]

    b) Generative Models   [05M]

5. How Matrix factorization works in PCA. Explain in detail?   [10M]

6. Explain PCA and its process with their applications.   [10M]

7. Explain in detail the concept of Kernel and K- Means?   [10M]

8. Give a detail note on Mixture models in machine Learning.   [10M]

9. Explain Latent factor model and its uses?   [10M]

10. Define Matrix Completion and its uses?   [10M]

UNIT-III

1. Explain the evaluation technology of machine learning algorithm?   [10M]

2. Define Model Selection & Discuss in detail?   [10M]

3. Define statistical theory how it is performed in machine learning?   [10M]

4. What is Boosting? Discuss with neat relevant example?   [10M]

5. Explain the concept of Bagging with its uses?   [10M]

6. What is Random forest? Explain with example?   [10M]

7. Explain any 2 machine learning algorithms and their performance factors?   [10M]

8. Discuss Linear Discriminate Analysis algorithm with neat sketch?   [10M]

9.Discuss Learning Vector Quantization algorithm with neat sketch?   [10M]

10. Explain boosting and ADA boosting algorithm with neat sketch?   [10M]

UNIT-IV

1. What is Sparse Modelling, Explain its functions?   [10M]

2. Explain the concept of modeling sequence timing series data?   [10M]

3. What is deep learning discuss its importance?   [10M]

4. Define the following

    a) Semi supervised learning   [05M]

    b) Active learning   [05M]

5. Discuss scalable Machine learning with distributed & online?   [10M]

6. How does inference in graphic model occurs explain the technology? [10M]

7. What is reinforcement learning explain its detailed concepts?   [10M]

8. Define Bayesian learning & how it impacts in machine learning?   [10M]

9. Discuss the feature representation learning?   [10M]

10. How to estimate sparse modeling?   [10M]

UNIT-V

1. Define learning techniques & explain in detail?   [10M]

2. Discuss the recent trends in various learning techniques of machine learning?   [10M]

3. Explain IOT and its features with any one application?   [10M]

4. Give a detail note on Classification methods for IOT with neat sketch?   [10M]

5. Explain the various models for IOT applications discuss with example?   [10M]

6. What are advantages and disadvantages of IOT discuss with real time example? [10M]

7. Write a note on:

    1. Trust for IoT & Security and Privacy for IoT   [05M]

2. Physical IoT Security   [05M]

8. Explain different networking and communication model in IoT.   [10M]

9. Describe the properties of smart physical objects.   [10M]

10. Describe the design principles for IoT.   [10M]