Machine Learning

Bh Plans

Save Offline

Answers



- Write down and explain Types of Machine Learning.
- 2. What are the Issues in Machine Learning?
- 3. Write down Application of Machine Learning
- Explain in detail Steps in developing a Machine Learning Application.
- Explain in detail Training Error and Generalization error.
- 6. Explain in detail Bias-Variance trade-off.
- 7. Write a short note on Linear Regression.
- 8. Explain in detail Multivariate Linear Regression.
- 9. Write a short note on Logistic Regression.
- 10. Explain in detail Decision Trees.
- 11. Constructing Decision Trees using Gini Index (Regression)
- 12. Differentiate Classification and Regression Trees
 (CART)
- 13. Write a short note on Confusion Matrix, [Kappa Statistics], Sensitivity, Specificity, Precision
- 14. Write a short note on ROC curve
- 15. Explain in detail Understanding Ensembles
- 16. Discuss in detail K-fold cross-validation











- 17. What are Different ways to combine classifiers
- 18. Explain Support Vector Machine Constrained Optimization.
- 19. Write a short note on Margins and support vectors
- 20. Explain in detail SVM as a constrained optimisation problem
- 21. Describe Quadratic Programming
- 22. Discuss SVM for linear and nonlinear classification
- 23. Explain in detail Graph-Based Clustering.
- Discuss Clustering with minimal spanning trees.
- 25. Explain Expectation-Maximization Algorithm.
- Describe Density-Based Clustering DBSCAN 26.
- Discuss in detail Dimensionality Reduction Techniques.
- 28. Describe Principal Component Analysis.
- 29. Write a short note on Linear Discriminant Analysis.
- 30. Discuss in detail Singular Value Decomposition.

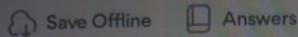


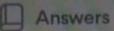














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- 4. Explain in detail Steps in developing a Machine Learning Application.
- 5 Fynlain in detail Training From and Generalization







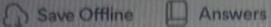






Big Data Analysis







- Write down Big Data characteristics and Types of Big Data.
- 2. Difference between Traditional vs. Big Data business approach.
- 3. Write a short note on Hadoop.
- 4. Explain Hadoop Ecosystem.
- 5. Write a short note on Grouping by Key.
- 6. Discuss Matrix-Vector Multiplication by MapReduce
- 7. Discuss Computing Projections by MapReduce, Union, Intersection, and Difference by MapReduce.
- 8. Write a short note on Hadoop Limitations.
- 9. Discuss Variations of NoSQL architectural patterns.
- 10. Write down a NoSQL solution for big data.
- 11. Analyzing big data with a shared-nothing architecture.
- 12. Explain in detail Master-slave versus peer-to-peer
- 13. Describe NoSQL systems to handle big data problems.
- 14. What are the Issues in Stream Processing.
- 15. Discuss Sampling Data techniques in a Stream





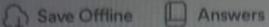






Big Data Analysis







problems.

- 14. What are the Issues in Stream Processing.
- 15. Discuss Sampling Data techniques in a Stream
- 16. Explain Bloom Filter with Analysis.
- 17. Explain in detail Count-Distinct Problem
- 18. Discuss in detail Flajolet-Martin Algorithm
- 19. Explain The Datar-Gionis-Indyk-Motwani Algorithm
- 20. Discuss Query Answering in the DGIM algorithm.
- 21. Discuss in detail Collaborative Filtering.
- Write a short note on Product Recommendation.
- Direct Discovery of Communities in a social graph.
- Exploring Basic features of R, Exploring RGUI, Exploring RStudio.

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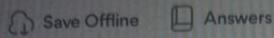


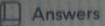






Big Data Analysis







- Discuss Query Answering in the DGIM algorithm.
- 21. Discuss in detail Collaborative Filtering.
- 22. Write a short note on Product Recommendation.
- 23. Direct Discovery of Communities in a social graph.
- 24. Exploring Basic features of R, Exploring RGUI, Exploring RStudio.
- Handling Basic Expressions in R, Variables in R, Working with Vectors, Storing and Calculating Values in R.
- 26. Explain Handling data in the R workspace
- Discuss in detail Executing Scripts and Creating Plots.
- 28. Explain Reading datasets and Exporting data from R.
- 29. Explain Manipulating and Processing Data in R
- 30. Explain in detail Data Visualization Types and Applications.

Natural Language Processing

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- 1. Discuss Knowledge and Grammar in language processing
- 2. Write down Challenges and Applications of NLP.
- 3. Discuss Variety of types of tools for regional languages pre-processing and other **functionalities**
- 4. Explain Lexicon free FST Porter Stemmer algorithm
- 5. Describe N-gram Sensitivity to the Training Corpus
- 6. Discuss Unknown Words like Open versus closed vocabulary tasks
- 7. Explain in detail Evaluating N-grams
- 8. Explain in detail Good-Turing Discounting
- 9. Write a short note on Noisy channel models
- 10. Explain in detail Advance Issues in Language Modeling.
- 11. Discuss Difficulties / Challenges in POS tagging
- 12. Write a short note on Hidden Markov
- 13. Explain in detail Model (HMM Viterbi) for POS tagging
- 14. Short note on Discriminative Model.
- 15. Write a short note on Maximum Entropy model
- 16. Explain in detail Conditional random Field (CRF)



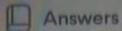








Save Offline Answers



tagging

- 14. Short note on Discriminative Model.
- 15. Write a short note on Maximum Entropy model
- 16. Explain in detail Conditional random Field (CRF)
- 17. Explain in detail Parsers are Top down and Bottom up
 - 18. Explain in detail Bottom Up Parser like CYK and PCFG (Probabilistic Context Free Grammar)
 - 19. Write a short note on Shift Reduce Parser
 - 20. Explain in detail Parsers based language modeling
 - 21. Write a short note on Lexical Semantics.
 - 22. Explain in detail Study of Various language dictionaries like WorldNet, Babelnet
 - 23. Explain in detail Word Sense Disambiguation (WSD)

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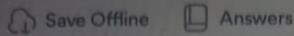


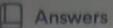














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- Explain in detail Study of Various language dictionaries like WorldNet, Babelnet
- Explain in detail Word Sense Disambiguation (WSD)
- Explain in detail Knowledge based approach(Lesk's Algorithm)
- Explain in detail Semi-supervised method (Yarowsky) Unsupervised (Hyperlex)
- Explain in detail Dictionaries for regional languages
- Explain in detail Anaphora Resolution using Hobbs and Cantering Algorithm.
- Write a short note on Discourse segmentation 28.
- Write a short note on Conference resolution 29.
- 30. Write a short note on Sentiment analysis Neural Network with NLP such as LSTM network.





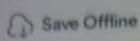


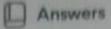




Information Retrival

Bh.Plans





1. Passing Mark (32)

- 1. Discuss in detail Information Versus Data
- Explain Trends and research issues in information retrieval.
- 3. Write a short note on the retrieval process.
- Describe Information retrieval in the library, web and digital libraries.
- 5. Describe Taxonomy of Information Retrieval models
- 6. Explain in detail Classic Information Retrieval
- 7. Write a short note on Theoretical model
- Describe in detail Alternative Algebraic models
 and Alternative Probabilistic models
- 9. Write a short note on Query structures
- 10. Write a short note on Pattern matching
- Difference between Automatic local analysis vs Automatic global analysis
- 12. Explain in detail Multimedia Information Retrieval
- 13. Explain in detail Distributed Information Retrieval

2. Average Between (32-45 Marks)

- 1. Discuss in detail Information Versus Data
- Explain Trends and research issues in information retrieval.
- 3. Write a short note on the retrieval process.





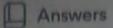






Information Retrival

Save Offline Answers



- 10. Write a short note on Pattern matching
- 11. Difference between Automatic local analysis vs Automatic global analysis
- 12. Explain in detail Multimedia Information Retrieval
- 13. Explain in detail Distributed Information Retrieval
- 14. Discuss Information retrieval system evaluation
- 15. Discuss Evaluation of unranked retrieval sets
- 16. Discuss Evaluation of ranked retrieval results
- 17. Describe Assessing and justifying the concept of relevance
- 18. Explain in detail System quality and user utility
- 19. Write a short note on System issues
- 20. Explain Refining a deployed system.

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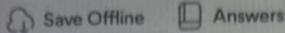


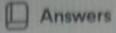












relevance

18. Explain in detail System quality and user utility 19. Write a short note on System issues

- 20. Explain Refining a deployed system.
- 21. Explain Boolean queries and Sequential searching
- Describe in detail Parametric and zone indexes
- 23. Write a short note on Learning weight and optimal weight
- Explain in detail Tf-IDF weighting. 24.
- Describe The vector space model for scoring 25.
- 26. Explain Inexact top K document retrieval





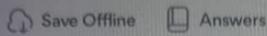


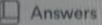




Management Informatio...

Bh.Plans







- 1. List the types of Information system? Explain in brief - Module no.1 | (10M)
- 2. Discuss competitive advantage achieved in Information System - Module no.1 | (10M)
- 3. Explain the architecture of Data mart and Data warehouse in an organization. - Module no.2 (10M)
- 4. Discuss the Impact of BI on Decision Making. -Module no.2 | (10M)
- 5. What are the potential benefits of social commerce to the customers and to the business? - Module no.4 | (10M)
- 6. What are major security threats to the information system? Discuss the measures taken to control information security. - Module no.3 | (10M)
- 7. Discuss the significance of social computing in marketing in detail. - Module no.4 | (10M)
- 8. What are the functional areas of the Information system? Explain in detail. - Module no.1 | (10M)
- 9. Define CRM. Describe the different types of CRM. Module no.4 | (10M)





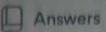






Management Informatio...

Save Offline Answers





- 7. Discuss the significance of social computing in marketing in detail. - Module no.4 | (10M)
- 8. What are the functional areas of the Information system? Explain in detail. - Module no.1 | (10M)
- 9. Define CRM. Describe the different types of CRM. - Module no.4 | (10M)
- 10. Design MIS for the Educational System. Module no.6 | (10M)
- 11. What is an information system? Explain the necessary element with a neat diagram. -Module no.1 | (5M)
- 12. Define Big Data and discuss its basic characteristics? - Module no.2 | (5M)
- 13. Explain the Ethical issues and threats of information security? - Module no.3 | (5M)
- 14. Describe how social computing inspires customer service - Module no.4 | (5M)
- 15. Differentiate between computer network wired and wireless technology - Module no.5 | (5M)

3. Above (45 Marks)

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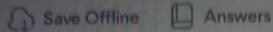


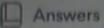






Management Informatio...







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- 16. Importance of security for ERP systems. Module no.3 | (5M)
- 17. Define Lead time and Cycle time. Module no.6 | (5M)
- 18. What are the different phases of the ERP implementation lifecycle? - Module no.6 | (10M)
- 19. What is business modeling? Module no.2 | (5M)
- 20. E-commerce Module no.4 | (5M)









