

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May-2018

M.Tech IV Semester

COURSE CODE: 11M1WCI431

MAX. MARKS:35

COURSE NAME: ADVANCED WEB MINING

COURSE CREDITS: 3

MAX. TIME: Two Hours

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

1. What is optimization condition of k-clustering problem? How k-means algorithm satisfy the convergence and optimality? [5]
2. What is distance based and probability based model for machine learning. Explain K-NN and Naive Bayes in this regards. [5]
3. Explain the layered architecture for semantic web. What is the role of RDF, RDFS, OWL and OWLS in formation of semantic web. [5]

Doc 1 new home sales top forecasts

Doc 2 home sales rise in July

Doc 3 increase in home sales in July

Doc 4 July new home sales rise

Doc 5 breakthrough drug for schizophrenia

Doc 6 new schizophrenia drug

Doc 7 new approach for treatment of schizophrenia

Doc 8 new hopes for schizophrenia patients

4. Using cosine similarity and k-means algorithm cluster the above documents into 2 groups. [5]
5. Consider the documents {Doc1, Doc2, Doc3, Doc5, Doc6, Doc7} as training documents classify {Doc4, Doc8} using k-nearest neighbor method. [5]
6. Write short note on following: [10]
  - a. Resources in semantic web.
  - b. Domain ontology.
  - c. Centrality measure.
  - d. Support vectors.
  - e. Internet vs. WWW.