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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- MAY 2019

M.Tech IV Semester

COURSE CODE: 11M1WCI431
MAX. MARKS: 35

COURSE NAME: Advanced Web Mining

COURSE CREDITS: 03
MAX. TIME: 2 Hrs

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

1. What is "Hypertext Induced Topic Search"(HITS) ? Derive iterative formula to compute hub and authority ranks. Also derive the matrix based equation for the same. Consider a directed random graph consisting of 6 nodes and 15 edges, compute the hub authority rank of the nodes in your graph.   [CO-5][marks 2+3+3+5]

2. What is PageRank? How it is different than HITS ranks. Compute the PageRank in the graph you have considered above and report the difference in ranking.   [CO-5][marks 2+2+5+1]

3. Describe the layered architecture of semantic web also draw the diagram. Explain the role of RDF and RDFS for text modeling and the role of OWL and OWLS for domain modeling.
                                                                                                            [CO-6][marks 4+4+4]