JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May 2017

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. Derive the matrix equation of Page-rank algorithm for web graph.
   Write the HITS algorithm for computing hub and authority rank of the web graph.
   Consider a random graph with 8 nodes and more than 14 edges. Compute HITS rank in your
   graph.   [5+3+7]

2. What is a linear classifier? Derive the equation of an optimal linear classifier for any given data
   sets. (Assume that they are linearly separable)   [2+4]

3. Explain the layered architecture for semantic web. What is the role of RDF, RDFS, OWL and
   OWLS in formation of semantic web?   [2+4]

4. Write short note of following.   [2 x 4]

   a) Resources in semantic web.

   b) Domain ontology.

   c) Snowball sampling.

   d) Support vectors.