

Dr. Ruchi

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- August 2019

B.Tech/ VIIth Semester

COURSE CODE: 18B1WCI732

MAX. MARKS: 15

COURSE NAME: Social and Information Network Analysis

COURSE CREDITS: 02

MAX. TIME: 1hr

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

1. Define the various network models based on the degree of distribution and list all their features. (2)
2. Explain the following in detail: (3)
  - I. Handshaking Lemma
  - II. Havel Hakimi Algorithm
3. Explain the various metrics of Social Network Analysis (2)
4. Which of the following cannot be a degree sequence of a graph? Explain with reason. (4)
  - (i) 7,6,5,4,4,3,2,1
  - (ii) 6,6,6,6,3,3,2,2
  - (iii) 7,6,6,4,4,3,2,2
  - (iv) 8,7,7,6,4,2,1,1
4. (i) Give an example of a graph which is (i) Euler and Hamiltonian (ii) Euler and not Hamiltonian (iii) Hamiltonian and not Euler. (2)
5. What do you mean by a Bipartite Graph? Explain with an example. (2)