JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

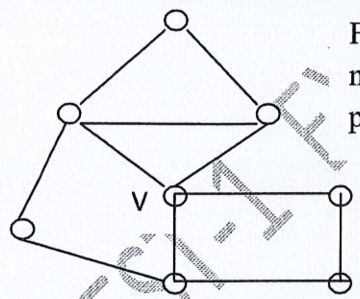
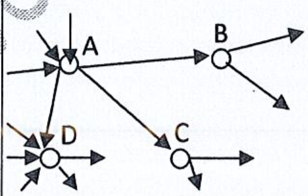
M.Tech-III Semester (CSE/IT)

COURSE CODE (CREDITS): 22M1WCI234 MAX. MARKS: 15

COURSE NAME: Social and Information Network Analysis

COURSE INSTRUCTOR: Dr. Amit Kumar MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*
(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems
(c) Use of calculators is not allowed

Q.No	Question	CO	Marks
Q1	Suppose you want to generate a synthetic social network similar like the real-world social networks. Specify at least three models to generate synthetic network. Mention some metrics to evaluate the characteristics of the synthetic network to keep it close with real-world network.	1	5
Q2	Elaborate the following with example: a) Six degree of separation b) Triadic closure c) Interpersonal Ties	1	3
Q3	 Find the clustering coefficient of the node 'V' in the given graph with proper details	1	2
Q4	Assume you are searching something on the Google, then what is the strategy Google used to keep the important pages at the top of the window.	2	2
	 Get the normalized page rank for the node of the given graph. Consider the weight of all the edges coming from unknown nodes as 1.		3

JUIT TEST-1 EXAMINATION FEB-2026

133