

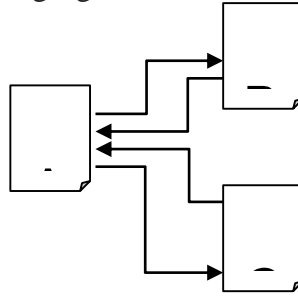
GUJARAT TECHNOLOGICAL UNIVERSITY**ME – SEMESTER –II-(New)-EXAMINATION – SUMMER-2019****Subject Code: 3722322****Date: 31/05/2019****Subject Name: Web Analytics and Development****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

- Q.1** (a) Define Social Network Data. Explain different types of variables in social network. **07**
- (b) How Social network data differ from standard social and behavioral science data. Justify your answer and explain number of measurement issues in social network. **07**
- Q.2** (a) Define Following with example. **07**
- 1) Closed walk
 - 2) Bipartite graphs
 - 3) Isomorphic Graph
 - 4) Diameter of Graph
- (b) Explain random graph model in detail. **07**
- OR**
- (b) Explain different Information visualization techniques. **07**
- Q.3** (a) Explain the purpose of online survey with its benefits and give the details of different online survey tools. **07**
- (b) List out the different types of notations used to represent a social network explain each. **07**
- OR**
- Q.3** (a) For comparing two versions of a webpage or app against each other to determine which one performs better which web analytical tool is used list and explain 3 to 4 tools for same. **07**
- (b) Explain data collection techniques for Social Network. **07**
- Q.4** (a) Explain Hyperlink-Induced Topic Search (HITS) . **07**
- (b) What is the importance of link analysis in SEO .Explain Hubs and Authorities. **07**
- OR**
- Q.4** (a) Explain Diffusion of Innovation model with its characteristics. **07**
- (b) How affiliation and identity affect social connection explain in detail. **07**
- Q.5** (a) List all page ranking factors. Explain any 4 of them. **07**
- (b) What is web crawling and indexing? Differentiate both with example. **07**

OR

- Q.5 (a)** What is the need of Page Rank? State the Page Rank formula. Calculate Page Rank of each page in following figure. Take initial PR value of each page as 1. **07**



- (b)** Consider a situation where you are having a business of super market. And you are developing web site of your business. In this case, discuss various factors that will affect Crawling operation of search engine. **07**

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