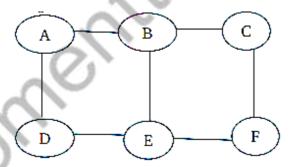
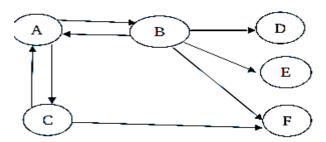
(3 Hours)

[Total Marks 80]

- i. Q.1 is compulsory
- ii. Attempt any three from the remaining
- iii. Assume suitable data
 - Q.1 (a) Explain Edit distance measure with an example. (5)
 - (b) When it comes to big data how NoSQL scores over RDBMS. (5)
 - (c) Give difference between Traditional data management and analytics approach
 Versus Big data Approach (5)
 - (d) Give Applications of Social Network Mining (5)
 - Q.2 (a) What is Hadoop? Describe HDFS architechure with diagram. (10)
 - (b) Explain with block diagram architechure of Data stream Management System. (10)
 - Q.3 (a) What is the use of Recommender System. How is classification algorithm used (10) in recommendation system.
 - (b) Explain the following terms with diagram
 1) Hubs and Authorities (10)
 - 2) Structure of the Web
 - Q.4 (a) What do you mean by Counting Distinct Elements in a stream. Illustrate with an (10)
 - example working of an Flajolet Martin Algorithm used to count number of distinct elements.
 - (b) Explain different ways by which big data problems are handled by NoSQL. (10)
 - Q.5 (a) Describe Girwan Newman Algorithm. For the following graph show how the Girvan Newman algorithm finds the different communities.



- (b) What is the role of JobTracker and TaskTracker in MapReduce.Illustrate Map (10) Reduce execution pipeline with Word count example.
- Q.6 (a) Compute the page rank of each page after running the PageRank algorithm for two iterations with teleportation factor Beta (β) value = 0.8



(b) What are the challenges in clustering of Data streams. Explain stream clustering algorithm in detail. (10)