

(3 Hours)

[Total Marks : 80]

- N.B.:**
1. Question No 1 is compulsory
 2. Attempt any three questions out of the remaining five
 3. All questions carry equal marks.
 4. Assume suitable data, if required and state it clearly.

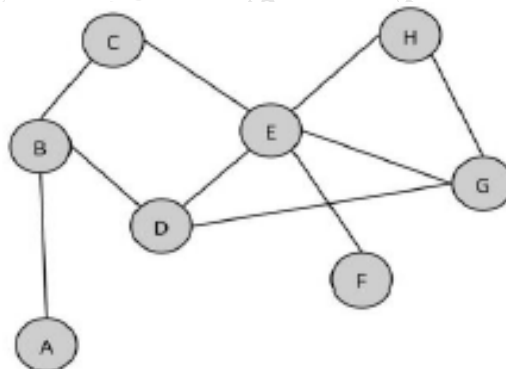
Q.1 Solve any four

20 (4x5)

- a. Define centrality and its types. How is it computed?
- b. Briefly discuss in-links, out-links, and co-links.
- c. What is the purpose of search engine optimization?
- d. Explain the steps needed to formulate a social media strategy.
- e. What are the benefits of social media users who use social media?

Q.2 a. Answer the following questions about this graph.

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- i. How many nodes are in the network?
 - ii. How many edges are in the network?
 - iii. Is this graph directed or undirected?
 - iv. Create an adjacency list for this graph.
 - v. Create an adjacency matrix for this graph.
 - vi. What is the length of the shortest path from node A to node F?
 - vii. What is the largest clique in this network? How many cliques of that size are there?
 - viii. How many connected components are there in this network?
 - ix. Estimate the density of the graph?
 - x. Are there any hubs in the network? If so, which node (s) and why is it a hub?
- b. Briefly list and define different actions performed by social media users.

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- Q.3 a. Discuss and differentiate social media texts. 10
- b. Discuss business data-driven location analytics and social media data-driven location analytics? 10
- Q.4 a. Explain the two main categories of search engine analytics. 10
- b. Explain common social media risks-mitigation strategies. 10
- Q.5 a. Briefly explain the seven layers of social media analytics. 10
- b. Explain the ways to measure the success of a company having social media. 10
- Q.6 Write short notes on any two 20 (2x10)
- a. Main challenges to social media analytics.
- b. Sources of Location Data.
- c. Traditional Vs social Recommendation Systems.
- d. Issues with the privacy policies.
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