

MANIPAL INSTITUTE OF TECHNOLOGY

(A constituent unit of MAHE, Manipal)

VII SEMESTER B.TECH. (COMPUTER SCIENCE AND ENGINEERING)

END SEMESTER EXAMINATIONS, DEC 2021

SUBJECT: Graph Analytics for Big Data [CRA 4058]

REVISED CREDIT SYSTEM (27/12/2021)

Time: 2:20PM- 3:35PM

MAX. MARKS: 20

Instructions to Candidates:

- ✤ Answer ALL the questions.
- ✤ Missing data may be suitable assumed.

1A. Consider the directed graph shown in the figure 1 below. Find the shortest path from source A to destination D using Dijkstra's shortest path algorithm with the help of weight matrix table.



Figure: 1

1B.	What is community analytics? What are the three types of analytic questions asked	3M
	about communities? Explain about internal and external degree of the node in	
	community analytics with suitable graph as an example.	
1C.	What are the V's of big data? Explain the impact of big data V's on graph? Explain each	3M
	with suitable example.	
2A.	How does Giraph paradigm efficiently handle the computation of aggregate values with an example function?	4M
2B.	Differentiate between Graphlab and Pregel.	3M

2C. List and describe the two large scale graph processing systems.

3M