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## K. J. Somaiya Institute of Technology, Sion, Mumbai-22 (Autonomous College Affiliated to University of Mumbai)

Nov - Dec 2024

(B. Tech ) Program: <u>EXTC</u> Scheme II Regular Examination: LY Semester: VII

Course Code: EXDLC7034 and Course Name: Big Data Analytics

Date of Exam: 21-11-2024

Duration: 02.5 Hours

Max. Marks: 60

Instructions:

(1)All questions are compulsory. (2)Draw neat diagrams wherever applicable.

(3) Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	Describe the characteristics of Big Data. How Big Data is generated?		CO1	U
b)	Illustrate different components of Hadoop Ecosystem are used in co-ordination?		CO2	AP
c)	Illustrate Graph data store with example.		CO3	AP
Q 2	Solve any two questions out of three: (05 marks each)	20		
a)	Explain Page Rank Algorithm to find page rank of each web page with example		CO4	AN
b)	Explore Data stream management system in detail.		CO5	AP
c)	Explore Bloom Filter in detail.		CO6	AP
Q.3	Solve any two questions out of three. (10 marks each)			
a)	Compare Traditional and Big Data?		CO1	U
b)	Illustrate Map Reduce schematic diagram with example.		CO2	AP
c)	Explore Key-Value stores and Columnar store database with example.		CO3	AP
Q.4	Solve any two questions out of three. (10 marks each)	20		
a)	Explain DGIM algorithm for estimating number of 1's in the window with examples?		CO4	AN
b)	Apply map reduce to perform matrix multiplication.		CO5	AP
c)	Apply A-priori algorithm to generate association rule between two objects with example?		CO6	AF