Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination Synoptic

September 2019

Max. Marks: 20	
Class: M.Tech	Duration: 1 Hr
Course Code: CE912	Semester: I
Name of the Course: Big Data Analytics and Management	Branch: Computer

Instructions:

(1) All questions are compulsory

(2) Assume suitable data if necessary

(3) Draw neat diagram wherever required.

Q No.		Max. Marks	CO	BL
Q.1	Illustrate the Hadoop Ecosystem and its core component at the input level, storage level, processing level, output level. What are the data injection tools for Structured, unstructured and semi structured data. Soln: Correct Diagram with explanation 5 marks Data Injection tools Scoop and Flume = 2 Marks – one each But if Diagram is correct and explanation is not correct then 4 marks	4+3	CO1	L2
Q.2	Elaborate the the concept of checkpointing by taking into consideration fsimage and edits-log files **OR** Consider a Job of 1 TB of data. Scenario 1 : one machine with 4 I/O channels each channel of 100 Mbps Scenario 2 : Clusture of 10 machines with 4 I/O channels Each Channel- 100 Mbps. What is the amount of time required in both the scenarioes to read 1 TB of data Soln: Correct Explanation of Checkpointing and fsimage and edit-log files = 3 marks Partial correct then 1 or 2 marks	3	CO2	L3
Q.3	Write the rules followed when streams is represented by buckets in DGIM Algorithm. How an input bit stream 10101100010111011001 0110 is partitioned into buckets. What happens when a new input stream 10101011 is added to it? Soln: Rules followed when streams is represented by buckets in DGIM Algorithm. 3 marks bit stream 1010110001011101100 10110 is partitioned into buckets. 2 marks new input stream 10101011 is added. 2marks	3+2+2	CO4	L3

Q.4	Draw the Structure of web and explain the components of it.	1+2	CO4	L2
	Soln: Diagram of the Structure of web. 1 mark			
	explain the components. 2marks			
	OR			
	Define Page rank. How spider traps and dead ends affect the Page rank.			
	Soln: Definition of Page rank. 1 mark			
	spider traps and dead ends affect the Page rank. 2 marks			