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# MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

## II SEMESTER MCA END SEMESTER EXAMINATIONS APRIL 2018 SUBJECT: CLOUD COMPUTING (MCA 4204)

REVISED CREDIT SYSTEM

(27/04/2018)

Time: 3 Hours

MAX. MARKS: 50

### Instructions to Candidates:

- ❖ Answer ALL FIVE questions.
- ❖ Missing data may be suitable assumed.

1A.	Explain in detail Google's solution for processing big data over the traditional database approach with suitable examples and diagrams.	5
1B.	What is Hadoop Distributed File system? How does Hadoop work? What are the advantages of Hadoop?	3
1C.	Explain any four criteria for selecting the right cloud service provider.	2
2A.	With a suitable diagram, explain the cloud computing life cycle.	5
2B.	Explain the cloud load balancing algorithm evaluation parameters. Categorize the cloud load balancing algorithms and explain different types. Explain Min- Min load balancing algorithm.	3
2C.	Differentiate shared memory MIMD machine and distributed memory MIMD machine.	2
3A.	Explain different types of cloud deployment models with examples. Also mention the advantages and disadvantages.	5
3B.	With suitable diagrams, explain different types of communication models for IOT implementation?	3
3C.	Explain the approaches of parallel programming.	2

4A.	What is big data? Explain about the 5 V's that have influence in big data. Explain about the big data processing pipeline and challenges associated in handling big data	5
4B.	List and explain any three Laws of Cludonomics and any three Laws of Behavioral Cludonomics.	3
4C.	Differentiate scale up and scale out approaches.	2
5A.	What are the characteristics of virtualized environments? What is the need of abstraction in computer architecture? Explain different layers of abstraction and their role in virtualization?	5
5B.	Explain code and data migration approaches in cloud computing.	3
5C.	Compare Grid and cluster computing.	2