Reg. No.									

Manipal Institute of Technology

(A Constituent Institute of Manipal University)

II SEMESTER M. C. A.

END SEMESTER EXAMINATION – MAY 2016

SUBJECT: CLOUD COMPUTING [MCA 4204]

12-05-2016

Time : 3 hours | Max. Marks : 50

Instructions to Candidates

1. Answer ANY FIVE FULL questions.
2. Draw figures wherever applicable.

1A Explain the five V's in big-data, associated challenges, and big-data processing pipeline.

1B Explain cluster computing, and categorize the clusters.

1C List and explain any four laws of cloudonomics.

(5 + 3 + 2)

2A What is map-reduce programming model? How can a big-data problem be solved using this model? Justify with a suitable example.

2B What is the need of abstraction in computer architecture? Explain the different layers of abstraction and their role in virtualization.

2C Explain the concept of cloud burst.

(5 + 3 + 2)

3A What is the role of load balancing concept in cloud services? Briefly explain about SJF and RR load balancing algorithm, with suitable examples and relevant figures.

3B Explain the map-reduce and hadoop fault-tolerance mechanism.

3C Describe data migration in brief.

(5 + 3 + 2)

4A With suitable keywords, provide a definition for cloud computing. List and explain the visible advantages and prominent challenges associated with cloud computing service. Also, explain the SPI model in cloud fundamentals.

4B Explain importance and challenges of capacity planning model.

4C Categorise and explain the scalability types.

(5 + 3 + 2)

5A Categorise virtualization, based on the various implementation methods involved. Explain each of them in detail.

5B List and explain the five key-attributes of cloud computing.

5C Explain the concept of cloud lock-in, and categorize them.

(5 + 3 + 2)

6A Explain the complete life-cycle that an organization follows when they seek to come out of a lock-in scenario with their earlier/existing CSP.

6B Explain the concepts of context switching, and HDFS data-redundancy policy.

6C Explain the basic steps involved in a simple load balancing operation.

(5 + 3 + 2)