Reg. No.		<u> </u>			



## MANIPAL INSTITUTE OF TECHNOLOGY, MANIPAL 576104

(Constituent College of Manipal University)



## SIXTH SEMESTER B.TECH (CCE) DEGREE MAKEUP EXAMINATION JUNE/JULY 2016 SUBJECT: CLOUD COMPUTING – ICT 356 (REVISED CREDIT SYSTEM)

TIME: 3 HOURS

06/07/2016

MAX. MARKS: 50

## Instructions to candidates

- Answer any FIVE FULL questions.
- Missing data, if any, may be suitably assumed.
- 1A. Give the NIST Definition of Cloud Computing. Explain Storage as service with benefits and drawbacks.
- 1B. Explain techniques to convert physical machine to virtual machine with neat diagram.
- 1C. List and explain two methods of VM replication?

(5+3+2)

- 2A. Explain the methods used by the hypervisor to optimize the CPU resources with diagram.
- 2B. Explain the following with suitable examples
  - i) Choreography
  - ii) User State Virtualization
  - iii) Web Design Axiom 0
- 2C. The data is transferring in a cloud between two hosts at 10am with an average rate of 10Kbps bandwidth. After one minute bandwidth is increased more than an average rate to 20Kbps. Further at 10:12am for three minutes bandwidth is at its peak say 60Kbps. What is the burst size at 10:14am? So how long the burst can stay if the data rate is 5.0Kbps?

(5+3+2)

- 3A. Explain two types of backup approach used in Virtualized Data Centre environments with neat diagram.
- 3B. What is Hyper-jacking, VM theft, DoS in terms of VM? Explain security measures for the same.
- 3C. List security mechanisms at network level. Explain any one technique in details.

(5+3+2)

- 4A. List and explain cloud deployment model with neat diagrams.
- 4B. How network based storage virtualization can be achieved in cloud environment?
- 4C. Differentiate between horizontal scaling and vertical scaling with neat diagram.

(5+3+2)

- 5A. Give the format of SOAP structure with neat diagram and explain the SOAP message components.
- 5B. Differentiate between Application Service Provider and Software-as-a-Service.
- 5C. What are the two parameters used to measure cloud performance?

(5+3+2)

- 6A. Explain NIST Reference Architecture with neat diagram.
- 6B. Bring out the differences between traditional provisioning and virtual provisioning with neat diagram.
- 6C. State the benefits of Desktop Virtualization.

(5+3+2)

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