

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**M.E. SEMESTER III-EXAMINATION – WINTER 2015**

**Subject code: 3735502**

**Date: 07/12/2015**

**Subject Name: Cloud Service & Security**

**Time: 2:30 PM to 5:00 PM**

**Total Marks: 70**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) What is cloud computing? Briefly discuss benefits and challenges of it. 07  
(b) Discuss the cloud services delivery models with their advantages. 07
- Q.2 (a) Briefly explain the *CIA triad* of information system security concepts in the context of cloud services. 07  
(b) Which factors are directly affecting the cloud software assurance? Briefly discuss the relevant cloud security design principles. 07
- OR**
- (b) Briefly discuss cloud deployment models with their characteristics. 07
- Q.3 (a) Briefly discuss the threats and vulnerabilities inherent in virtualized systems. 07  
(b) What is hypervisor? Discuss the major vulnerabilities inherent in the hypervisor? 07
- OR**
- Q.3 (a) Briefly discuss the VM specific security techniques. 07  
(b) What is Virtual Private Cloud? What are the advantages of it? Briefly discuss Amazon's VPC. 07
- Q.4 (a) What do you mean by VM isolation? How it is carried out? 07  
(b) Prepare the compliance check list for cloud customers. 07
- OR**
- Q.4 (a) Briefly discuss how Authentication and Authorization carried out in the Public Cloud. 07  
(b) Discuss cloud malware, its detection and prevention strategies. 07
- Q.5 (a) Discuss virtualization system-specific attacks. 07  
(b) Explain VM migration attack in detail. 07
- OR**
- Q.5 (a) What is hyper jacking? How one can mitigate the risks of hyper jacking? 07  
(b) Discuss the Virtualization System Security Issues. 07

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