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MANIPAL INSTITUTE OF TECHNOLOGY, MANIPAL 576104
(Constituent College of Manipal University)



SEVENTH SEMESTER B.TECH (IT) DEGREE - MAKEUP EXAMINATION, JAN - 2016
SUBJECT: PROGRAM ELECTIVE II- CLOUD COMPUTING – ICT 441
(REVISED CREDIT SYSTEM)

TIME: 3 HOURS

07/01/2016

MAX. MARKS: 50

Instructions to candidates

- Answer any **FIVE FULL** questions.
- Missing data, if any, may be suitably assumed.

- 1A. Explain each block of NIST Reference Architecture of Cloud Computing with proper diagram.
1B. What are the benefits of using use thin clients in organization with cloud scenario?
1C. Draw diagram for Shared Authentication Module with Enterprise Service Bus. (5+3+2)
- 2A. Explain Database-as-a-Service with benefit and drawbacks.
2B. Explain Virtual Machine Files and File Management System.
2C. Differentiate between Full Virtualization and Para Virtualization. (5+3+2)
- 3A. Write a Python/Java program to display the welcome message and steps for hosting web application on Google App Engine.
3B. How network based storage virtualization can be achieved in cloud environment?
3C. The data transferring in a cloud between two hosts at 9am with an average rate of 5Kbps bandwidth. After one minutes bandwidth is increased more than an average rate to 10Kbps. Further at 9:12am for three minutes bandwidth at peak say 30Kbps. What is the burst size at 9:14am? So how long the burst can stay if the data rate is 3.0Kbps? (5+3+2)
- 4A. Explain Hot Conversion Process with stepwise diagrams.
4B. Differentiate between Application Service Provider and Software-as-a-Service.
4C. Securing Data-at-rest is Storage Level and Securing Data-at-flight is Network Level. Justify the statement. (5+3+2)
- 5A. Explain with four phases how organization can adopt the cloud?
5B. Ramesh is working in a multinational company as a business analyst. Graduated as an IT engineer, Ramesh is having sufficient knowledge about development and testing of different applications. Recently he got an assignment from the company as the company is planning to migrate some existing web applications on cloud due to shortage of infrastructure. Ramesh has been asked to analyze three cloud providers and submit the report containing the following information: Which cloud provider is best? What are the risk and convenience factors involved in migrating into the best cloud provider?
5C. How virtual machine cloning can be done? (5+3+2)
- 6A. Explain Desktop Virtualization Techniques in detail.
6B. Suggest different SaaS financial model to organization for pricing their products.
6C. Explain Cloud Infrastructure Framework with suitable diagram. (5+3+2)
