

**IS7E12**

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M S RAMAIAH INSTITUTE OF TECHNOLOGY**(AUTONOMOUS INSTITUTE, AFFILIATED TO VTU)****BANGALORE – 560 054****SEMESTER END EXAMINATIONS – JANUARY 2015**

Course & Branch : B.E. – INFORMATION SCIENCE & ENGG. Semester : VII
Subject : Cloud Computing Max. Marks : 100
Subject Code : IS7E12 Duration : 3 Hrs

Instructions to the Candidates:

- Answer one full question from each unit.

UNIT – I

- List four characteristics of network-centric computing. (04)
 - Write the structure of three basic types of cloud delivery models and discuss. (10)
 - Discuss the working of Amazon EC2. (06)
- Write various objectives of service level agreements. (04)
 - Briefly explain four open-source platforms for setting up private clouds. (10)
 - Discuss any six products of Google which are based on cloud computing. (06)

UNIT – II

- Discuss various attributes which are used to characterize the workflows. (06)
 - Discuss any three high-performance computing applications on Cloud. (09)
 - Explain the working of Map-Reduce programming model. (05)
- Explain how word frequency count problem can be solved using Map-Reduce Programming model. (06)
 - Discuss the working of the GrepTheWeb application, along with various technologies used to implement the same. (10)
 - How cloud computing technology is useful in developing social computing applications. (04)

UNIT – III

- Briefly discuss the functions of VMs. (04)
 - Compare full virtualization with paravirtualization. (10)
 - Discuss the working of Xen, a paravirtualization platform. (06)
- Write any two pitfalls of virtualization technology. (04)
 - What are virtual machines? Discuss with neat diagrams different types of virtual machines supported. (10)
 - Compare the performance of native Linux system with OpenVZ systems. (06)

UNIT – IV

- Which are the four basic mechanisms to implement resource management policies? (04)
 - Discuss the working of feedback control which uses dynamic thresholds. (10)
 - With a timing diagram, discuss equal portioning rule. (06)



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8. a) Which are most commonly used scheduling policies which decides the order of execution of tasks? (04)
b) Discuss the working of utility-based approach for cloud based web services. (10)
c) Using control theory principles derive necessary condition for optimality. (06)

UNIT - V

9. a) Give the working of two abstract models of storage. (04)
b) Write the architectural diagram of a GFS cluster, and discuss its working. (10)
c) Discuss the role of Trust in the context of Cloud Computing Security. (06)
10. a) Write three important characteristics of the *Unix* File System that enabled the extension from local to remote file management. (04)
b) With a configuration diagram, list the salient features of General Parallel File System. (10)
c) Explain the working of Big Table, with any two applications using the Big Table. (06)
