First Semester M.Tech Degree Examination, Dec.2015/Jan.2016
Cloud Computing

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. With a block diagram, explain cloud computing reference models and services. (10 Marks)
   b. Discuss some of the ethical issues in cloud computing. (05 Marks)
   c. What are the major challenges faced in cloud? (05 Marks)

2 a. With a block diagram, explain AWS management console offered by Amazon. (12 Marks)
   b. How does windows Azure support cloud services? Justify with suitable diagram. (08 Marks)

3 a. Google provides certain services in cloud environment. Discuss in terms of SaaS and PaaS. (06 Marks)
   b. Discuss some of the user experiences with cloud computing. (04 Marks)
   c. Explain the case study of the Grep The Web application. (10 Marks)

4 a. Briefly explain architectural styles used in cloud applications. (04 Marks)
   b. Differentiate between various types of applications running on cloud. (06 Marks)
   c. Differentiate between workflows and program using a suitable diagram. (06 Marks)
   d. Write a note on security rules for application and transport layer protocols in EC2. (04 Marks)

5 a. Discuss the significance of hypervisor in cloud. (04 Marks)
   b. Differentiate between full virtualization and paravirtualization. (06 Marks)
   c. Explain the case study of XEN hypervisor with suitable diagrams. (10 Marks)

6 a. Elucidate the problems faced by virtualization of x86 architecture. (10 Marks)
   b. Explain how control theory principles and queuing model enables one to design task scheduling on a cloud. (10 Marks)

7 a. How does combinatorial auctions and ASCA combinatorial auctions allocates resources in cloud? (10 Marks)
   b. Explain the security risks faced by cloud users. (10 Marks)

8 a. Write a note on trust in the context of cloud computing. (05 Marks)
   b. Explain how security is achieved in :
      i) Operating system security.
      ii) VM security.
      iii) Security of virtualization.
      iv) Security risks posed by shared images.
      v) Security risks posed by management OS. (10 Marks)
   c. Write a note on service for adaptive data streaming and cloud based optimal FPGA synthesis. (05 Marks)

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