

Tribhuvan University  
Institute of Science and Technology  
2074

Bachelor Level / Fourth Year /Eight Semester/Science  
Computer Science and Information Technology-(CSc.458)  
(Cloud Computing)

Full Marks: 60  
Pass Marks: 24  
Time: 3 hours.

*Candidates are required to give their answers in their own words as far as practicable.*  
The figures in the margin indicate full marks.

Attempt all questions.

1. Define the term cloud in cloud computing. Conceptualize self-provisioning and de-provisioning capability in cloud computing? [2+4]
2. What is para-virtualization? How virtualization is used to enforce cloud computing services? [2+4]
3. Define cloud migration. What are the reasons for the companies to migrate from traditional computing environment to cloud computing environments? [6]
4. What do you mean by anything-as-a-service? How External and Internal dimension in Jericho cloud cube model differs from the Proprietary and Open dimension? [1+5]
5. Explain how services like early detection, log centralization and continuous system patching are provided under Monitoring-as-a-Service? [6]
6. Mention the similarities and dissimilarities between managed service providers/ cloud service providers. How organizations can get benefited by virtualizing the data centers? [4+2]
7. Why cloud services are designed based on the loosely coupled component principle of Service Oriented Architecture? How SOA is used in designing cloud services? [3+3]
8. What is host security? Discuss various approaches for ensuring host security in cloud networks. [6]
9. Why it is important to assess the concept of recovery time objective in disaster recovery? How disaster recovery is done in cloud infrastructure? [2+4]
10. Discuss the various services provided under Infrastructure-as-a-Service (IaaS). [6]