

Nirma University

Institute of Technology

Semester End Examination (IR), May - 2017

B. Tech. in Computer Engineering / Information Technology, Semester-VI
IT662 Cloud Computing

Roll /
Exam No.

Supervisor's initial
with date

Time: 3 Hours

Max. Marks : 100

Instructions:

1. Attempt all questions.
2. Figures to right indicate full marks.
3. Use section-wise separate answer book.
4. Draw neat sketches wherever necessary.

SECTION – I

Q-1 Do as directed

[14]

- A Why and when to use private cloud services? What are the characteristics of the private cloud? (6)
- B What do you mean by Virtual Machines Provisioning and its manageability? Also write the phases involved in Virtual machine life cycle. (8)

Q-2 Answer the following:

[19]

- A Mention a scenario that focuses to, "Business to Business Integration (B2Bi)" services, which are an important factor today. Mention the various mashup integration services which can reuse and leverage the existing cloud services to speed up the implementation. (8)
- B Integration as a Service will act as a bridge between different data locations/systems, explain the various step involved for data integration engineering lifecycle, which is necessary for the sustainability of the integrated systems. (6)

OR

- B What are the various layers of cloud computing? Mention which layer of cloud computing matches its service contents with respect to the given table. (6)

1	Social networks, office suites, CRM and video processing
2	Programming languages, frameworks, mashups editors, and structured data
3	Compute servers, data storage, firewall, and load balancer

- C Why do the cloud computing users concern about "data locked-in" and "standardization"? (5)

Q-3 Answer the following:

[17]

- A Discuss about the needs of virtualization supports at various levels in detail. (10)
- B Why you think that live migration should be associated to high availability? Explain the live migration anatomy by using Xen hypervisor. (7)

OR

- B Explain in detail the working of MapReduce programming model with help of an example. (7)

SECTION - II**Q-4 Do as directed****[20]**

- A What are the key components of SLA? Discuss about various types of SLA in detail. Also mention various key contractual elements for the same. (10)
- B Discuss about the seven-step model of migration into a cloud in detail. (10)

Q-5 Answer the following**[15]**

- A Discuss various scenarios involved in protecting a cloud user's access to its data. (9)
- B Justify the importance of rules engine and monitoring systems in automated policy based management systems. (6)

OR

- B Elucidate the three classes of services that characterize the ANEKA container. (6)

Q-6 Answer the following**[15]**

- A In a model for federated cloud computing, mention its major types of actors. Also discuss about the RESERVOIR architecture: major component and its interfaces. (8)
- B Discuss the importance of information card. State the strengths and weakness of the information card. (7)

OR

- B Discuss about "On-Boarding of Application" with respect to SLA management and mention the steps associated with the same. Also give two examples of operational policies. (7)
