B.Tech III Year II Semester (R13) Regular Examinations May/June 2016

CLOUD COMPUTING

(Common to CSE and IT)

Time: 3 hours Max. Marks: 70

PART - A

(Compulsory Question)

- 1 Answer the following: $(10 \times 02 = 20 \text{ Marks})$
 - (a) Mention the fundamental design issues in scalable performance.
 - (b) Draw the cluster architecture.
 - (c) What are the desirable features of cloud?
 - (d) Briefly describe online MQ.
 - (e) List the steps involved in providing VM.
 - (f) Define real-time migration.
 - (g) Give the General taxonomy for admission control mechanisms.
 - (h) What is meant by negotiation in SLA?
 - (i) List and define the three stages in Lewin's change management model.
 - (j) What are the various tests performed in acceptance testing phase of cloud?

PART - B

(Answer all five units, $5 \times 10 = 50 \text{ Marks}$)

[UNIT - I]

What is the purpose of virtual machine? List and explain the various levels in virtual machine implementation.

OR

- 3 Give a brief note on the following computing environments:
 - (a) Centralized computing.
 - (b) Parallel computing.
 - (c) Distributed computing.
 - (d) Cloud computing.

[UNIT – II]

- 4 (a) Draw and explain the cloud computing stack.
 - (b) Classify the clouds based on deployment model.

OR

- 5 (a) Draw and explain the iterative seven step model of migration into the cloud.
 - (b) List and explain the transition challenges in cloud.

UNIT – III

- 6 Explain the following terms related to capacity reservation:
 - (a) Preparation Overhead.
 - (b) Runtime Overhead.
 - (c) Leasing Model.
 - (d) Lease Scheduling.

OR

7 Explain RVWS framework in detail.

[UNIT – IV]

8 List and explain the different phases in the SLA management.

OR

- 9 Explain the following terms related to building content delivery networks using clouds:
 - (a) Cloud Front.
 - (b) Nirvanix Storage Delivery Network.
 - (c) Rack space Cloud Files.
 - (d) Azure Storage Service.

UNIT – V

10 Draw and explain the cloud service life cycle.

OR

What are the five driving factors for change, encapsulated by the framework? Explain them in detail.

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CLOUD COMPUTING

(Common to CSE and IT)

Time: 3 hours Max. Marks: 70

PART - A

(Compulsory Question)

- 1 Answer the following: $(10 \times 02 = 20 \text{ Marks})$
 - (a) List the design objectives of computer cluster.
 - (b) Define parallel computing.
 - (c) Mention the benefits of cloud computing.
 - (d) Give a note on storage virtualization.
 - (e) What are the steps to provide VM?
 - (f) List the key motivations for autonomic cloud burst.
 - (g) What are the basic principles of cloud computing?
 - (h) Make a comparison between the classical HPC and HPC in cloud environment
 - (i) List the various tests performed in acceptance testing phase of cloud.
 - (i) Draw the CROPS framework.

PART - B

(Answer all five units, $5 \times 10 = 50 \text{ Marks}$)

[UNIT - I]

- 2 (a) With the help of a neat diagram, explain the cluster architecture.
 - (b) Explain the applications of high performance and high throughput systems.

OF

- 3 (a) Discuss the parallel and distributed programming models.
 - (b) Describe about levels of virtualization implementation in detail.

UNIT – II

4 List and explain the desirable features of cloud.

OR

- 5 (a) Discuss the seven steps model of migration into a cloud.
 - (b) Explain the business derivers towards a marketplace for enterprise cloud computing.

UNIT – III

6 With the help of neat diagram, explain the Aneka framework architecture.

OR

- 7 (a) Draw and explain the virtual machine life cycle.
 - (b) Write the classification of scientific applications and services in the cloud.

(UNIT – IV)

8 Briefly explain the best practices in architecting cloud applications in the AWS cloud.

OR

- 9 (a) Discuss about SLA management in cloud.
 - (b) Illustrate the business benefits of cloud computing.

UNIT - V

10 List the five driving factors for change encapsulated by the framework? Explain them in detail.

OR

- 11 (a) Explain the data privacy and security issues in cloud computing.
 - (b) With the help of neat diagram, explain the cloud service life cycle