

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-IV • EXAMINATION – WINTER • 2014

Subject Code: 2640013

Date: 06-12-2014

Subject Name: Cloud Computing

Time: 10:30 am - 01:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Write Short note (any 7) **14**
- (i) Amazon Elastic Block Store
 - (ii) AWS cloud Formation
 - (iii) RMI
 - (iv) SOA
 - (v) Emulation
 - (vi) Amazon Machine Image
 - (vii) SLA
 - (viii) Federated Cloud
 - (ix) Amazon SWF Timeout Types
- Q.2 (a)** Explain cloud computing Reference Model. What are the characteristics and benefits of cloud computing? **07**
- (b)** What do you mean by Virtualization? Explain the taxonomy of virtualization techniques. **07**
- OR**
- (b)** Describe how cloud computing technology can be applied to Business and Consumer Applications. **07**
- Q.3 (a)** What is energy efficient computing? Explain the Green cloud-computing Reference Architecture. How DVFS help in Energy Efficient computing? **07**
- (b)** Explain the difference between conventional application workflow and Amazon SWF workflow? **07**
- OR**
- Q.3 (a)** (i) Explain the role of Promise<T>, data convertor and marshaling while data exchange between Activities and Workflows. **04**
- (ii) Explain Amazon SWF Timeout Types? **03**
- (b)** Explain the architectural styles of distributed computing **07**
- Q.4 (a)** (i) Explain the following annotations of SWF **03**
- 1. @NoWait
 - 2. @Execute
 - 3. @Workflow
- (ii) Explain the difference between Full Virtualization, Para-virtualization and Hardware assisted Virtualization. **04**
- (b)** Explain the role of Activity worker, workflow worker and Workflow Starter with example. **07**
- OR**
- Q.4 (a)** Explain Error Handling Mechanism in Amazon AWS Flow Framework. **07**
- (b)** List and explain various barriers to cloud adoption. **07**

- Q.5 (a) Write Short Note: 07**
 (i) Java Reply Behavior for AWS Flow Framework.
 (ii) Daemon Tasks.
- (b) Explain the role of predecessor and contributor technologies in the evolution of cloud computing. 07**
- OR**
- Q.5 (a) Explain worker Threading Model in Amazon AWS Flow Framework in detail. 07**
(b) Explain the Hardware Architectures of cloud computing. 07
