Seat No.: _____                                                    Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY
### M. E. - SEMESTER – I • EXAMINATION – WINTER • 2013

**Subject code: 712305N**                                      **Date:  06-01-2014**
**Subject Name: Distributed 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.**

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|---|---|---|---|
| **Q.1** | **(a)** | Explain Common Object request Broker Architecture. | **07** |
| | **(b)** | Explain multithreading with example. | **07** |
| | | | |
| **Q.2** | **(a)** | Write a short note on MPI | **07** |
| | | | |
| | **(b)** | Compare Tightly coupled System and Loosely coupled System. | **07** |
| | | **OR** | |
| | **(b)** | Explain Marshaling and Unmarchaling in RMI. | **07** |
| | | | |
| **Q.3** | **(a)** | What are main similarities and difference between RPC and Ordinary Procedure call method? | **07** |
| | | | |
| | **(b)** | Explain parallel virtual machines. | **07** |
| | | | |
| | | **OR** | |
| **Q.3** | **(a)** | Explain Object Persistence and Object Serialization. | **07** |
| | **(b)** | Explain the implementation of RPC mechanism. | **07** |
| | | | |
| **Q.4** | **(a)** | Explain and compare J2EE and .Net Distributed application. | **07** |
| | **(b)** | Write short note on message Oriented Middleware. | **07** |
| | | **OR** | |
| **Q.4** | **(a)** | Write the advantages of XML and also explain API for XML processing. | **07** |
| **Q.4** | **(b)** | Explain web service protocol stack and also explain features of web services. | **07** |
| | | | |
| **Q.5** | **(a)** | Explain with example Elements of following web services protocol. (1) SOAP  (2) WSDL | **07** |
| | | | |
| | **(b)** | Create .XSD file for mobile information and also create well formed XML document to store this information against .XSD. | **07** |
| | | **OR** | |
| **Q.5** | **(a)** | Explain and compare virtualization and clustering. | **07** |
| | **(b)** | Explain  management component of Grid. | **07** |

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