

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-I(New course)• EXAMINATION – WINTER- 2015

Subject Code: 3715102**Date: 01/01/2016****Subject Name: Advanced Operating System and Management****Time: 2:30 pm to 5:00 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** (a) Explain the Design issues of Distributed Operating System **07**
(b) What is Termination Detection in Distributed Systems ? Write the algorithm for identifying Termination of Distributed Operating System **07**
- Q.2** (a) Explain Global State with an example. **07**
(b) Write short note on Chandy-Lamports algorithm for collection of Global State. **07**
- OR**
- (b) Explain 2 applications of Agreement Protocol. **07**
- Q.3** (a) Write on Design issues of Distributed File System. **07**
(b) Write notes on Network Address Translation(NAT). **07**
- OR**
- Q.3** (a) Explain Raymonds Algorithm with an example for Distributed Mutual Exclusion **07**
(b) Write SUZUKI-KASAMI'S Broadcast Algorithm for Mutual Exclusion Algorithm **07**
- Q.4** (a) Discuss the components of the Access Matrix Model. **07**
(b) Write the advantages of Distributed Shared Memory. **07**
- OR**
- Q.4** (a) Explain the working Hierarchy Deadlock Detection with a diagram. **07**
(b) What are the different strategies of Distributed Deadlock handling? **07**
- Q.5** (a) Explain the Components of a Load Distributing Algorithm. **07**
(b) Explain the working of Sender-Initiated Algorithm of Distributed Scheduling with a neat diagram. **07**
- OR**
- Q.5** (a) Explain any 4 ways of Performance Tuning of Operating System. **07**
(b) Explain the role of Systems Management. **07**
