

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2160710

Date:21/05/2019

Subject Name:Distributed operating system

Time:10:30 AM TO 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** (a) Define distributed operating system. Differentiate with normal OS. **03**
(b) Explain blocking and non-blocking primitives. **04**
(c) What is transparency? List its types for distributed systems. **07**
- Q.2** (a) What is Marshaling and Un-marshaling of parameters? **03**
(b) List the goals for security in DOS. **04**
(c) Differentiate tightly coupled and loosely coupled microprocessor system. **07**
- OR**
- (c) Explain symmetric and asymmetric cryptosystems. **07**
- Q.3** (a) Explain Token Ring Algorithm for Mutual Exclusion. **03**
(b) Why we need load balancing? Discuss any two issues related to it. **04**
(c) Explain shared memory architecture. Discuss strict sequential model for it. **07**
- OR**
- Q.3** (a) What is the difference between replication and file caching? **03**
(b) Draw architecture of SUN Network File System. **04**
(c) What is Real Time Distributed System? Explain the types of Real Time Distributed Operating System. **07**
- Q.4** (a) List various attacks on computer systems. **03**
(b) Explain the replication for web hosting system **04**
(c) List deadlock prevention method in DOS. Explain any one. **07**
- OR**
- Q.4** (a) List various methods used in catch management algorithms. **03**
(b) Explain Feistel Cipher techniques in detail. **04**
(c) Explain Bully algorithm with example. **07**
- Q.5** (a) Explain asynchronous point to point message passing with example **03**
(b) Explain NORMA and NUMA systems. **04**
(c) What is Fault Tolerance? How can we achieve fault tolerant system? **07**
- OR**
- Q.5** (a) Explain worm and logic bomb with their consequences. **03**
(b) Explain types of file sharing primitives. **04**
(c) What is RMI? Explain components of RMI in JAVA **07**
