Enrollment No: _____   Exam Seat No:_____

C.U.SHAH UNIVERSITY
Summer Examination-2017

Subject Name : Distributed Systems

Subject Code : 4TE08DSY1   **Branch: B.Tech (CE)**

Semester : 8   **Date : 12/04/2017**   **Time : 02:30 To 05:30**   **Marks : 70**

Instructions:
    (1) Use of Programmable calculator & any other electronic instrument is prohibited.
    (2) Instructions written on main answer book are strictly to be obeyed.
    (3) Draw neat diagrams and figures (if necessary) at right places.
    (4) Assume suitable data if needed.

Q-1   Define Following Terms.   **(14)**
    a) Distributed Operating System (DOS)
    b) Cache Memory
    c) Disk-full Workstation
    d) Replication
    e) Transparency
    f) IPC
    g) Orphan Call
    h) Thrashing
    i) Kernel
    j) Network Operating System (NOS)
    k) ARP Protocol
    l) Transient Object
    m) Mutable File System
    n) Thread

Attempt any four questions from Q-2 to Q-8

Q-2   **Attempt all questions**   **(14)**
    a) Describe Processor-pool & Workstation Server Models of Distributed System.
    b) Explain different Addressing Techniques of Client-Server Model.

Q-3   **Attempt all questions**   **(14)**
    a) List all transparency and explain different types of transparency.
    b) Draw and Explain in Details microkernel and monolithic kernel approach.

Q-4   **Attempt all questions**   **(14)**
    a) What is process migration? What are the main steps involved in process migration.
    b) What is ostrich algorithm? Explain Bully Election algorithm in detail.

Q-5   **Attempt all questions**   **(14)**
- **a)** Briefly define Distributed System. What are the advantages of Distributed System?
- **b)** Explain Units of Data Unit Transfer in Distributed File System.

Q-6   **Attempt all questions**   **(14)**
- **a)** Briefly explain Load-Balancing approaches.
- **b)** Define RMI. Explain design issues in RMI.

Q-7   **Attempt all questions**   **(14)**
- **a)** Explain in detail Distributed Shared Memory Architecture.
- **b)** Write the features of a Global Scheduling Algorithm. Also Describe Centralized Heuristic Algorithm.

Q-8   **Attempt all questions**   **(14)**
- **a)** Briefly explain VMTP and FLIP protocol.
- **b)** What are the desirable features of a Good Naming System? Explain basic approaches to generate System-Oriented Names?